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Training Command

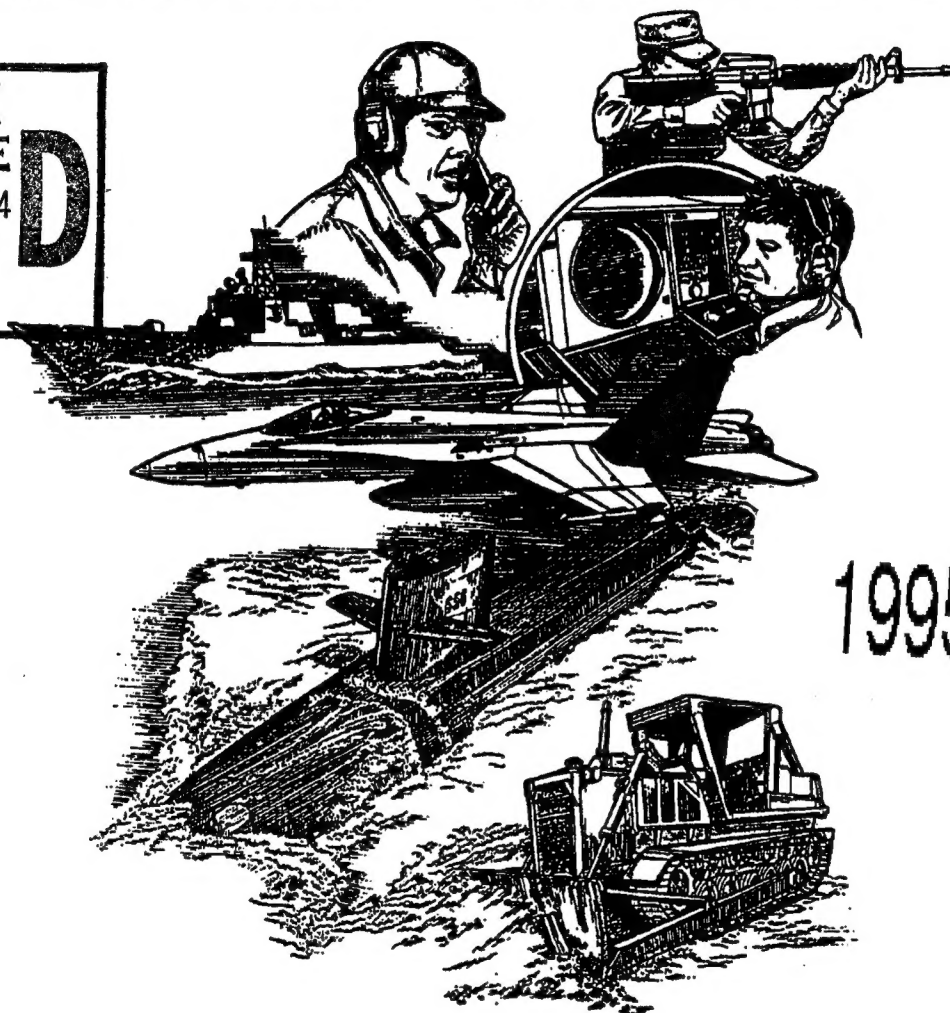
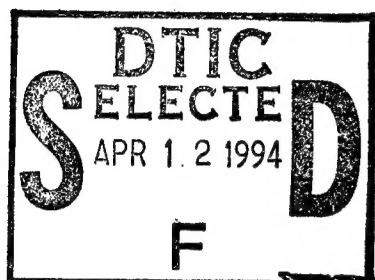
NAVEDTRA 131  
FEBRUARY 1993

Training Manual  
(TRAMAN)



# PERSONNEL PERFORMANCE PROFILE BASED CURRICULUM DEVELOPMENT MANUAL

## VOLUME I SUPPLEMENT - CURRICULUM DEVELOPERS AIDS



19950410 090

### SUPPLEMENT TO MIL-STD-1379D

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CHIEF OF NAVAL EDUCATION AND TRAINING  
NAVAL AIR STATION  
PENSACOLA, FLORIDA 32508-5100

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9 Mar 93

LETTER OF PROMULGATION FOR NAVEDTRA 131

1. This manual will be implemented throughout the Naval Education and Training Command upon receipt.. It replaces DOD-HDBK 292 as a guide for Personnel Performance Profile (PPP) based curriculum development within the NAVEDTRACOM. This manual also supersedes and cancels NAVEDTRA 38004A.
2. This publication provides guidance for developing training materials which will comply with the requirements of MIL-STD 1379D, recognized by CNET as the single standard for production of training materials.
3. The procedures presented in this manual follow a PPP Based Curriculum Development method. The manual is designed for use by Navy subject matter experts who hold Instructor NEC 9502 or equivalent and are graduates of the PPP Based Curriculum Developer course (CIN A-012-0051), which used this manual as its basic reference.
4. Guidelines for planning a curriculum development project and for producing training materials through five stages of the PPP based method are contained in this manual. Guidelines for the implementation and evaluation of curriculum training materials are contained in NAVEDTRA 135, Navy School Management Manual, promulgated 18 September 1992.
5. Procedural guidance for development of training materials following a task based method is published in NAVEDTRA 130.
6. Corrections and comments concerning this manual are invited and should be addressed to Chief of Naval Education and Training (N-63).
7. Reviewed and approved.

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*Louise C. Wilmot*  
LOUISE C. WILMOT  
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**FOREWORD**

This supplement provides a variety of Curriculum Developer Aids (CDAs) which assist the developer in creating a PPP/TPS-Based Curricula. These CDAs range from simple Quick Reference Checklists (QRCs), which serve to remind the developer of all the required course documents, to more complex CDAs, such as those provided for PPP Table development.

*The CDAs are suggested as a means of development but their use is optional.*

For detailed guidance in developing any of the PPP/TPS products you must refer to the appropriate Volume and Chapter of NAVEDTRA 131.

Additional CDAs for the subject titles listed below are under consideration and may be incorporated into this document at a later date.

TRAINING OBJECTIVE STATEMENT CODE CDAs  
TRAINING LEVEL ASSIGNMENT CDAs  
TABLE ASSIGNMENT MATRIX CDAs  
TRAINING PATH CHART CDA  
LESSON PLAN DEVELOPMENT CDAs  
TRAINEE GUIDE DEVELOPMENT CDAs

FEBRUARY 1993

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
QUICK REFERENCE CHECKLISTS

**QUICK REFERENCE CHECKLISTS**



FEBRUARY 1993

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
**QUICK REFERENCE CHECKLISTS**

## **INTRODUCTION**

These Quick Reference Checklists (QRCs) provide the Developer a quick reference for the end products of Curriculum Development. Additionally, each QRC lists the contents of each product, and provides references where detailed information regarding the products can be found.

You may use these QRCs to:

1. Check the products that you have updated or developed for correct content and order
2. Quickly find the appropriate reference manuals

**PLANNING QRC****PLANNING PRODUCT**

*Training Project Plan (TPP)* – The TPP is a proposal to develop a new course or revise an existing course.

**TPP CONTENTS** – Use the checklist provided to ensure that your TPP includes applicable elements from those listed.

<u>ELEMENT</u>	<u>CHECK HERE</u>
1. Cover Page	<input type="checkbox"/>
2. Table of Contents	<input type="checkbox"/>
3. Justification	<input type="checkbox"/>
4. Impact if Course Revision or Development is not Undertaken	<input type="checkbox"/>
5. Course Data Page	<input type="checkbox"/>
6. Safety Risks and Hazardous Materials Exposure	<input type="checkbox"/>
7. Curriculum Development Method Recommended	<input type="checkbox"/>
8. Milestones	<input type="checkbox"/>
9. Required Resources	<input type="checkbox"/>

**PLANNING REFERENCES**

1. NAVEDTRA 131, Volume I, Chapter 2
2. NAVEDTRA 131, Volume II, Tab A-1
3. NAVEDTRA 131, Volume III, Chapter 2

## STAGE ONE QRC

### STAGE ONE PRODUCTS

**Personnel Performance Profile (PPP) Tables** – PPP Tables list the minimum knowledge and skills required to coordinate, direct, or perform operation and maintenance. The five types of PPP Tables are:

<i>HARDWARE</i>	<i>NON-HARDWARE</i>
<i>Equipment</i>	<i>Task/Function } TF</i>
<i>Subsystem } ESS</i>	<i>Background } BG</i>
<i>System</i>	

**PPP TABLE PACKAGE CONTENTS** – Your project may contain any combination of the above tables. Normally, several PPP tables are developed for a particular program. When completed, they are delivered to the Curriculum Control Authority (CCA) for review as a package. Use the checklist below to ensure you include all required elements.

<u>ELEMENT</u>	<u>CHECK HERE</u>
1. PPP Cover including the Date of Issue	<input type="checkbox"/>
2. PPP Table Listing including:	<input type="checkbox"/>
a. PPP Table Title	<input type="checkbox"/>
b. Originating Activity of each PPP Table listed	<input type="checkbox"/>
3. PPP Table Title Page including:	<input type="checkbox"/>
a. Assigned PPP Table Number	<input type="checkbox"/>
b. Latest Equipment Modification Record Number	<input type="checkbox"/>
c. New Design-Drawing Number	<input type="checkbox"/>
4. All Applicable ESS, Task/Function, or Background PPP Tables developed or revised for the project	<input type="checkbox"/>

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
**QUICK REFERENCE CHECKLISTS**

FEBRUARY 1993

*Training Path System (TPS)* – A tool used to identify the training requirements for ALL categories of personnel in a training program.

**TPS CONTENTS** – Use the checklist provided below to ensure that all elements of the TPS are included in your TPS.

<b><u>ELEMENT</u></b>	<b><u>CHECK HERE</u></b>
1. Cover Page	<input type="checkbox"/>
2. Table of Contents	<input type="checkbox"/>
3. Introduction	<input type="checkbox"/>
4. Training Objective Statements (TOS)	<input type="checkbox"/>
5. Training Level Assignment (TLA) Tables	<input type="checkbox"/>
6. Table Assignment Matrix (TAM)	<input type="checkbox"/>
7. Training Path Chart (TPC)	<input type="checkbox"/>
8. PPP Table Index	<input type="checkbox"/>

**STAGE ONE REFERENCES**

1. NAVEDTRA 131, Volume I, Chapters 3 and 4
2. NAVEDTRA 131, Volume II, Tab A-2, A-3
3. NAVEDTRA 131, Volume III, Chapters 3 and 4

## STAGE TWO QRC

### STAGE TWO PRODUCTS

*Training Course Control Document (TCCD)* – A collection of products which expresses in summary form, the content, structure, and essential management information for a course.

**TCCD CONTENTS** – Use the following checklist to ensure that your TCCD includes all the elements listed.

<u>ELEMENT</u>	<u>CHECK HERE</u>
<b>A. FRONT MATTER</b>	
1. Cover Page	<input type="checkbox"/>
2. Letter of Promulgation	<input type="checkbox"/>
3. Table of Contents	<input type="checkbox"/>
4. Foreword	<input type="checkbox"/>
5. Course Data	<input type="checkbox"/>
6. Trainee Data	<input type="checkbox"/>
7. Security Clearance	<input type="checkbox"/>
8. Prerequisites	<input type="checkbox"/>
9. Obligated Service	<input type="checkbox"/>
10. NOBC/NEC Earned	<input type="checkbox"/>
<b>B. CURRICULUM OUTLINE OF INSTRUCTION</b>	
1. Part(s)	<input type="checkbox"/>
2. Section	<input type="checkbox"/>
3. Topic	<input type="checkbox"/>
4. Course Learning Objectives	<input type="checkbox"/>
5. Topic Learning Objectives	<input type="checkbox"/>
6. Profile Item-to-Topic Objective Assignment Chart (OAC)	<input type="checkbox"/>
<b>C. ANNEXES</b>	
1. Resource Requirements List (RRL)	<input type="checkbox"/>
2. Course Master Schedule	<input type="checkbox"/>
3. Fault Applicability List (FAL)	<input type="checkbox"/>
4. Profile Item-to-Topic Objective Assignment Chart	<input type="checkbox"/>

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
**QUICK REFERENCE CHECKLISTS**

FEBRUARY 1993

**STAGE TWO REFERENCES**

1. NAVEDTRA 131, Volume I, Chapter 5
2. NAVEDTRA 131, Volume II, Tab A-4
3. NAVEDTRA 131, Volume III, Chapter 5

## STAGE THREE QRC

### STAGE THREE PRODUCTS

*Lesson Plan* – A Lesson Plan is the document that programs the use of all other Training Materials.

*Trainee Guide* – A Trainee Guide is the primary trainee training material.

*Test Package* – A Test Package is a collection of documents which provide the CCA with a comprehensive Test format breakdown.

*Instructional Media Material* – IMM is a classroom and lab training support asset that is used by the instructor.

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
**QUICK REFERENCE CHECKLISTS**

FEBRUARY 1993

**LESSON PLAN CONTENT** – Use the checklist provided below to ensure that your Lesson Plan includes all the elements listed.

<u>ELEMENT</u>	<u>CHECK HERE</u>
<b>Front Matter</b>	
a. Cover Page (Optional)	<input type="checkbox"/>
b. Title Page	<input type="checkbox"/>
c. List of Effective Pages	<input type="checkbox"/>
d. Letter of Promulgation (Optional)	<input type="checkbox"/>
e. Change Record	<input type="checkbox"/>
f. Table of Contents	<input type="checkbox"/>
g. Security Awareness Notice	<input type="checkbox"/>
h. Safety/Hazard Awareness Notice	<input type="checkbox"/>
i. How to Use the Lesson Plan	<input type="checkbox"/>
j. Course Master Schedule	<input type="checkbox"/>
g. Course Learning Objectives	<input type="checkbox"/>
<b>Part Elements</b>	
a. Tab Divider	<input type="checkbox"/>
b. Section Pages	<input type="checkbox"/>
c. Topic Pages	<input type="checkbox"/>
d. Discussion-Demonstration-Activity (DDA) Pages	<input type="checkbox"/>
e. Answer Sheets	<input type="checkbox"/>
<b>Reference Material Elements (Optional)</b>	
a. Resource Requirements List (RRL)	<input type="checkbox"/>
b. Profile Item-to-Topic Objective Assignment Chart (OAC)	<input type="checkbox"/>
c. Fault Applicability List (FAL)	<input type="checkbox"/>



**TRAINEE GUIDE CONTENT** – Use the checklist to ensure your Trainee Guide includes all the elements listed.

<u>ELEMENT</u>	<u>CHECK HERE</u>
<b>Front Matter</b>	
a. Trainee Name Page (Optional)	<input type="checkbox"/>
b. Cover (Optional)	<input type="checkbox"/>
c. Title Page	<input type="checkbox"/>
d. List of Effective Pages	<input type="checkbox"/>
e. Change Record	<input type="checkbox"/>
f. Security Awareness Notice	<input type="checkbox"/>
g. Safety/Hazard Awareness Notice	<input type="checkbox"/>
h. Table of Contents	<input type="checkbox"/>
i. How To Use Your Trainee Guide	<input type="checkbox"/>
j. Course Learning Objectives	<input type="checkbox"/>
k. Course Master Schedule (Optional)	<input type="checkbox"/>
<b>Instruction Sheets</b>	
a. Information Sheets	<input type="checkbox"/>
b. Diagram Sheets	<input type="checkbox"/>
c. Job Sheets	<input type="checkbox"/>
d. Assignment Sheets	<input type="checkbox"/>
e. Problem Sheets	<input type="checkbox"/>
f. Outline Sheets	<input type="checkbox"/>

**TEST PACKAGE CONTENT** – Use the checklist provided to ensure your Test Package includes all of the elements listed.

<u>ELEMENT</u>	<u>CHECK HERE</u>
a. Testing Plan	<input type="checkbox"/>
b. Performance Test Administrator's Guide	<input type="checkbox"/>
c. Job Sheets	<input type="checkbox"/>
d. Knowledge Test Administrator's Guide	<input type="checkbox"/>
e. Knowledge Test Items	<input type="checkbox"/>

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
**QUICK REFERENCE CHECKLISTS**

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**INSTRUCTIONAL MEDIA MATERIAL** – The checklist provided below lists various types of IMM. Your project may contain some or all of these training supports. The list is not all inclusive.

<u>ELEMENT</u>	<u>CHECK HERE</u>
Transparencies	<input type="checkbox"/>
Video Tapes	<input type="checkbox"/>
Slide Presentation	<input type="checkbox"/>
Wall Charts	<input type="checkbox"/>
Audio Presentation	<input type="checkbox"/>
OJT Handbook	<input type="checkbox"/>

**STAGE THREE REFERENCES**

**LESSON PLAN**

1. NAVEDTRA 131, Volume I, Chapter 6
2. NAVEDTRA 131, Volume II, Tab A-5
3. NAVEDTRA 131, Volume III, Chapter 5

**TRAINEE GUIDE**

1. NAVEDTRA 131, Volume I, Chapter 7
2. NAVEDTRA 131, Volume II, Tab A-6
3. NAVEDTRA 131, Volume III, Chapter 5

**TEST PACKAGE**

1. NAVEDTRA 131, Volume I, Chapter 8
2. NAVEDTRA 131, Volume II, Tab A-7
3. NAVEDTRA 131, Volume III, Chapter 5

**INSTRUCTIONAL MEDIA MATERIAL**

1. NAVEDTRA 131, Volume I, Chapter 9
2. NAVEDTRA 131, Volume III, Chapter 5

FEBRUARY 1993

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
PPP TABLE DEVELOPMENT

**PPP TABLE DEVELOPMENT**

## INTRODUCTION

PPP Tables are the cornerstone of PPP Based Curriculum Development. Figure 1 illustrates how PPP tables and their associated Line Items appear in the various curriculum documents.

This section of the supplement provides the "tools" needed to construct Equipment, Subsystem, and System (hardware) and Background and Task/Function (non-hardware) PPP Tables

To develop PPP Tables you must first assemble the information needed for your project. Table 1, ESS Data Compilation, provides a list of the information required for most ESS PPP Tables. Task/Function and Background tables are the last to be developed. The general and prerequisite knowledge requirements identified in these tables is derived from analysis of the completed ESS Tables.

The next step in development is to complete the PPP Model Statements contained in Tables 2 through 4. The ESS Model Statements contain blanks where the name of your Equipment, Subsystem, or System is inserted. The Task/Function and Background Model Statements provide blanks where general and prerequisite knowledge you have determined necessary can be inserted.

Following the Model Statements, CDAs are provided that lead you step-by-step through the process of selecting the applicable Model Statements for your Hardware PPP tables. They will become the Hardware PPP Table Line Items.

Finally, PPP Table Checklists are provided that assist you in determining that all necessary information has been included in your PPP tables

## **ANALYZING AND COMPILING INFORMATION**

After the information resources have been identified and obtained, use them to compile data regarding:

- Equipment characteristics
- Operation and maintenance requirements
- Documentation requirements
- Safety and security considerations

Table 1 may be used as an Aid for identifying these and other characteristics and requirements. You should regard Table 1 as an aid only and not limit your data collection to the categories listed. Other data unique to the equipment or the particular training situation may need to be added. However, using Table 1, you should be able to more adequately account for required data while analyzing documentation, interviewing personnel, and observing actual equipment operation and maintenance.

PPP TABLE S0136. Commercial Utility Cargo Vehicle (TYPE A), Utility  
(Equipment)

PPP LINE ITEM

ITEM	KNOWLEDGE/SKILL
1-5-2	Describe operational tasks for CUCV (TYPE A) a. Pre-operational procedures (1) Routine (go/no-go, self test, etc.) b. Operational procedures c. Post-operational procedures
1-5-3	Describe indications which may occur during operation of the CUCV (TYPE A). Include alarms, indicators, displays, and readouts.
1-5-4	Describe casualty/degraded/abnormal/not full mission capable mode(s) of operation for the CUCV (TYPE A).
1-5-5	Describe data logging requirements for the CUCV (TYPE A). Include logging method, types of data logged, and disposition.
1-5-6	Describe all acceptance tests for the CUCV (TYPE A).

← **PPP  
Line  
Item**

*The Line Item as it appears in the **Equipment  
PPP Table**. Chapter three of Volume I  
provides a detailed discussion of PPPs.*

**FIGURE 1: TRACK OF SELECTED PPP "LINE ITEM/TABLE NUMBER  
REFERENCE" THROUGH A CURRICULUM (PAGE 1 OF 7)**

TRAINING LEVEL ASSIGNMENT (TLA) CHART

Training Level Assignment for the Construction Mechanic (NEC CM-XXXX)									
TABLE S0136									
ITEM	LEVEL								
	F1	T1	T2	T3	O1	O2	P1	C1	C2
1-1-1	A	A							
1-1-2	A	A							
1-1-3	A	A							
1-1-4	A	A							
1-1-5	A	A							
1-4-2	A	A							
1-5-1	A	A							
1-5-2a	A								
1-5-2b	A								
1-5-2c	A	A							
1-5-3	A	A							

← PPP  
Line  
Item

*The TLA identifies the level at which the line item will be taught and the location of the training. Chapter 4 (Training Path System (TPS) information) of Volume I discusses this chart in detail.*

FIGURE 1: TRACK OF SELECTED PPP "LINE ITEM/TABLE NUMBER REFERENCE" THROUGH A CURRICULUM (PAGE 2 OF 7)

**OBJECTIVE ASSIGNMENT CHART (OAC)**

PROFILE ITEM-TO-TOPIC OBJECTIVE ASSIGNMENT CHART								
TABLE	ITEM	TOS	VOL	PART	SECT	TOPIC	L.O.	TEST ITEM NO.
S0136	1-4-2	T1			2	2	2	1
	1-4-2	T2			4	2	2	1
	1-5-1	T1			2	3	1	1
	1-5-1	T2			4	3	1	1
	1-5-2 a	T1			2	3	2	1-3
	b	T1			2	3	2	1-5
	c	T1			2	3	2	1
	d	T2			4	3	2	1
	1-5-3	T1			2	3	3	1
	1-5-3	T2			4	3	3	1

← **PPP  
Line  
Item**

*The profile item-to-topic assignment chart is abbreviated "OAC" for Objective Assignment Chart. This chart provides a cross reference between the PPP line items, Lesson Plan location, Learning Objectives and test items. The OAC is discussed in detail in Chapter 5 of Volume I.*

**FIGURE 1: TRACK OF SELECTED PPP "LINE ITEM/TABLE NUMBER REFERENCE" THROUGH A CURRICULUM (PAGE 3 OF 7)**



## LESSON PLAN

A-234-5478 VOLUME I

## TABLE OF CONTENTS

Section	Page	Section	Page
FRONT MATTER			
Cover	i	2. Interface Description of the CUCV (TYPE A)	S0136-2-2-1
List of Effective Pages	ii		
Letter of Promulgation	iii	3. BASIC OPERATION OF THE CUCV (TYPE A)	S0136-2-3-1
Changes	iv		
Record Awareness Notice	v	3. BASIC OPERATION OF THE CUCV (TYPE A)	S0136-3-1
Table of Contents	vi	1. Basic Operation of the CUCV (TYPE A)	S0136-3-1-1
How to Use the Instructor Guide	viii	4. THEORY OF THE CUCV (TYPE A)	S0136-4-1
Allocation of Instructional Time	xii		
Course Learning Objectives	xxi		
VOLUME I			
PART 542 COMMERCIAL UTILITY CARGO VEHICLE (TYPE A) CUCV		1. Functional Description of the CUCV (TYPE A)	S0136-4-1-1
1. FAMILIARIZATION WITH THE CUCV (TYPE A)	S0136-1-1	2. Interface Description of the CUCV (TYPE A)	S0136-4-2-1
1. General Description of the CUCV (TYPE A)	S0136-1-1-1	3. Operational Description of the CUCV (TYPE A)	S0136-4-3-1
2. Physical Description of the CUCV (TYPE A)	S0136-1-2-1	4. Maintenance Description of the CUCV (TYPE A)	S01364-4-1
2. INTRODUCTION TO THE CUCV (TYPE A)	S0136-2-1	5. OPERATION OF THE CUCV (TYPE A)	S0136-5-1
1. Functional Description of the CUCV (TYPE A)	S0136-2-1-1	1. Operation of the CUCV (TYPE A)	S0136-5-1-1

*The Table of Contents page of the Lesson Plan identifies the specific PPP line item and its location within the Lesson Plan. Chapter 6, Volume I provides a detailed discussion of Lesson Plan organization.*

FIGURE 1: TRACK OF A SELECTED PPP "LINE ITEM/TABLE NUMBER REFERENCE" THROUGH A CURRICULUM (PAGE 4 OF 7)

## LESSON PLAN

A-234-5678 VOLUME I

### COURSE LEARNING OBJECTIVES

Upon successful completion of this course, the trainee will have acquired the following knowledge and skill and be able to:

#### Knowledge:

1. State the purpose, function, and describe the documentation of the CUCV (TYPE A).

#### Skills:

1. Perform normal operational procedures with supervision on the CUCV (TYPE A).
2. Perform all operational procedures with supervision on the CUCV (TYPE A).
3. Perform preventive maintenance procedures with supervision on the CUCV (TYPE A).
4. Perform documented fault isolation and repair procedures with supervision on the CUCV (TYPE A).
5. Perform approved, undocumented corrective maintenance procedures, with supervision, to the authorized repair level for the CUCV (TYPE A).

### SKILL AND KNOWLEDGE DERIVED FROM A PPP LINE ITEM

*The PPP line items converted to Course Learning Objectives. The Course Learning Objectives page can be found in the Lesson Plan section of the curriculum. Chapter 6, Volume I provides a detailed discussion of Lesson Plan organization.*

FIGURE 1: TRACK OF A SELECTED PPP "LINE ITEM/TABLE NUMBER REFERENCE"  
THROUGH A CURRICULUM (PAGE 5 OF 7)

Topic Learning Objectives  
LESSON PLAN

A-234-5678 VOLUME I

1. Commercial Utility Cargo Vehicle (Type A) Utility

Topic 1. Operation Tasks for the CUCV (Type A)

Topic Learning Objectives:

Upon successful completion of this topic the trainee will be able to:

1. Describe operational tasks CUCV (Type A)
  - A. Pre-operational tasks (CUCV (Type A)
  - B. Operational procedures
  - C. Post-operational procedures

2. Describe indications which may occur during operation of the CUCV (Type A). Include alarms, indicators, displays, and results.

3. Describe casualty/degraded/abnormal/not full mission capable mode(s) of operation for the CUCV (Type A)

Topic Learning  
Objective  
Derived from a  
←PPP  
Line Item

4. Describe data logging requirements for the CUCV (Type A). Include logging method, types of data logged and disposition.

5. Describe the acceptance tests for the CUCV (Type A)

*The PPP Line Item as it appears as a Topic Learning Objective (TLO) within a Lesson Plan. TLOs are usually the same as the PPP Line Item. Chapter 6, Volume I provides a detailed discussion of Lesson Plans.*

FIGURE 1: TRACK OF A SELECTED PPP "LINE ITEM/TABLE NUMBER REFERENCE" THROUGH A CURRICULUM (PAGE 6 OF 7)

### INFORMATION SHEET

<b>TRAINEE GUIDE</b>		<b>A-234-5678</b>
		Sheet 1 of 3
<div style="border: 1px solid black; padding: 5px; margin: 0 auto; width: 80%;"> <b>INFORMATION SHEET</b> </div>	<div style="border: 1px solid black; padding: 5px; margin: 0 auto; width: 80%;"> <b>S1036-2-3-1</b> </div>	<b>←PPP Table Number Reference</b>
<b>DAILY PRE-OPERATIONAL PROCEDURES</b>		
<b>A. INTRODUCTION</b>		
1. This information sheet will inform you of the pre-operational procedures that must be done daily before operating the CUCV (TYPE A).		
<b>B. REFERENCES</b>		
1. <i>Operator's Manual for CUCV (TYPE A), Utility</i> (TM-2320-289-10)		
<b>C. INFORMATION</b>		
1. The following PRE-OPERATIONAL PROCEDURES must be done each day before operating your UTILITY VEHICLE. Failure to perform these daily PRE-OPERATIONAL PROCEDURES may cause serious damage to your vehicle.		
a. <b>CHECK OIL LEVEL.</b> Operator's Manuals for all wheeled tracked vehicles stress performance of this procedure.		

*An Information Sheet pertaining to a specific PPP line item. Information Sheets provide amplifying information not available in the manuals. Information Sheets are found in the Trainee Guide. Chapter 7, Volume I provides a detailed discussion of the Trainee Guide.*

**FIGURE 1: TRACK OF A SELECTED PPP "LINE ITEM/TABLE NUMBER REFERENCE" THROUGH A CURRICULUM (PAGE 7 OF 7)**

**TABLE 1. ESS DATA COMPILATION**

<b>A. PHYSICAL/FUNCTIONAL/OPERATIONAL DESCRIPTION</b>	
1. Purpose (intended use)	<input type="checkbox"/>
2. Operating processes	<input type="checkbox"/>
3. Dimensions	<input type="checkbox"/>
4. Capabilities	<input type="checkbox"/>
5. Limitations	<input type="checkbox"/>
6. Manual/automatic aspects	<input type="checkbox"/>
<b>B. REQUIREMENTS (Operating, Logistic, Interface, Maintenance, Environment)</b>	
1. Power	<input type="checkbox"/>
2. Input/output signals	<input type="checkbox"/>
3. Coding	<input type="checkbox"/>
4. Procedures	<input type="checkbox"/>
a. Pre-operational	<input type="checkbox"/>
b. Normal	<input type="checkbox"/>
c. Shutdown	<input type="checkbox"/>
d. Emergency	<input type="checkbox"/>
e. Post-operational	<input type="checkbox"/>
5. Ancillary equipment (test, handling, monitoring, etc.)	<input type="checkbox"/>
6. System/subsystem interface	<input type="checkbox"/>
7. Maintenance policy	<input type="checkbox"/>
8. Tests (on-line/off-line)	<input type="checkbox"/>
9. Preventive maintenance (adjusting, cleaning, lubricating, etc.)	<input type="checkbox"/>
10. Corrective maintenance (fault isolation, level of repair, disassembly, assembly, etc.)	<input type="checkbox"/>
11. Environment	<input type="checkbox"/>
a. Temperature	<input type="checkbox"/>
b. Ventilation	<input type="checkbox"/>
c. Electric/magnetic fields	<input type="checkbox"/>
d. Radiation	<input type="checkbox"/>
e. Chilled air/water	<input type="checkbox"/>
12. Calibration and Alignment	<input type="checkbox"/>
13. Accuracy	<input type="checkbox"/>
<b>C. DOCUMENTATION</b>	
1. Technical publications	<input type="checkbox"/>
2. Operation and maintenance procedures	<input type="checkbox"/>
3. Logs	<input type="checkbox"/>
<b>D. SAFETY</b>	
<input type="checkbox"/>	
<b>E. SECURITY</b>	
<input type="checkbox"/>	

**MODEL STATEMENTS**

In this section you will find tables that will assist you in the development of both Hardware and Non-hardware PPP Table Line Items

The steps you take should be:

1. Complete ESS Model Statements using the ESS Model Statement Table
2. Complete Task/Function and Background Model Statements using the applicable Model Statement Tables
3. Construct Equipment PPP Tables using the Equipment PPP Table CDA
4. Construct Subsystem PPP Tables using the Subsystem PPP Table CDA
5. Construct System PPP Tables using the System PPP Table CDA

**Hardware Model Statements**

Use Table 2 to develop Hardware PPP Table Line Items. When completed, all applicable Equipment, Subsystem, and System (ESS) PPP Table Line Items will be extracted from Table 2.

TABLE 2. ESS MODEL STATEMENTS (Sheet 1 of 8)

2.	<u>(EQUIPMENT, SUBSYSTEM, OR SYSTEM) SKILLS</u>
2-1.	<p>OPERATION</p> <p>No operation involved. (Inserted when the equipment, subsystem, or system requires no operator action.)</p> <p>-Or-</p>
2-1-1.	<p>Perform tasks for operation of the _____ including:</p> <p>a. Pre-operational procedures</p> <p>(1) Routine</p> <p>(2) Installation</p> <p>(3) Assembly</p> <p>b. Operational procedures</p> <p>c. Post-operational procedures</p>
2-1-2.	Recognize and interpret all indications occurring during the performance of the operating procedures and perform appropriate operator actions in the proper sequence on the _____.
2-1-3.	Perform tasks in the (i) casualty, (ii) degraded, (iii) abnormal, and (iv) not full mission capable modes of operation for the _____.
2-1-4.	Recognize and interpret the format of tapes punched under computer control of the _____.
2-1-5.	Perform data logging requirements for the _____.

TABLE 2. ESS MODEL STATEMENTS (Sheet 2 of 8)

2-1-6.	Perform acceptance tests for the _____.
2-1-7.	Adhere to the security requirements during operation of the _____.
2-1-8.	Adhere to personnel and equipment safety precautions during operational procedures for the _____.
2-2.	MAINTENANCE
2-2-1.	Use special (i) tools and (ii) test equipment required for maintenance of the _____ as prescribed in applicable documentation.
2-2-2.	Perform preventive maintenance procedures, including quality assurance procedures, on the _____ as scheduled by the (i) Preventive Maintenance Management Plan (PMMP), (ii) Planned Maintenance System (PMS), and (iii) Naval Aviation Maintenance Program (NAMP).
2-2-3.	Perform (i) alignment, (ii) adjustment, and (iii) calibration procedures on the _____.
2-2-4.	Perform the (i) operational tests and (ii) diagnostic programs, as applicable, for maintenance of the _____.
2-2-5.	Recognized and interpret all malfunction indications for the _____.
2-2-6.	Perform systematic fault isolation procedures contained in prescribed maintenance documentation.
2-2-7.	Use authorized methods to isolate faults which cannot be located using procedures contained in prescribed maintenance documentation.



TABLE 2. ESS MODEL STATEMENTS (Sheet 3 of 8)

2-2-8.	(i) Disassemble, (ii) repair, and (iii) reassemble the _____ to the authorized maintenance level. (Not applicable to the subsystem and system PPP model statements.)
2-2-9.	Perform post-repair procedures, including quality assurance procedures, on the _____.
2-2-10.	Adhere to the security requirements when performing maintenance on the _____.
2-2-11.	Adhere to personnel and equipment safety precautions when performing maintenance procedures on the _____.
1.	<u>(EQUIPMENT, SUBSYSTEM, OR SYSTEM) KNOWLEDGE</u>
1-1.	GENERAL
1-1-1.	State the function(s) of the _____.
1-1-2.	State that the _____ consists of the following (Equipment, use "major functional areas") (Subsystem, use "equipment") (System, use "subsystems"). Include the function of each.  a. (Equipment – list the major functional areas) (Subsystem – list the equipment) (System – list subsystems)
1-1-3.	Define the (i) abbreviations, (ii) terms, and (iii) symbols used with the _____.
1-1-4.	State the operational characteristics and capabilities of the _____.  a. Power, logic levels, capacity, emergency, tolerances, and accuracies when applicable.
1-1-5.	Describe the differences between models of the _____.
1-1-6.	State the security requirements for the _____.

**TABLE 2. ESS MODEL STATEMENTS (Sheet 4 of 8)**

1-2.	<b>PHYSICAL DESCRIPTION</b>
1-2-1.	<p>Describe all major and associated components of the _____. Include (i) name, (ii) nomenclature, (iii) physical appearance, (iv) reference designator, (v) location, and (vi) construction features.</p> <p>a. (Equipment – list major components, subassemblies, and functional areas)          (Subsystem – list the equipment)          (System – list subsystems)</p>
1-2-2.	<p>Describe the (i) displays, (ii) controls, and (iii) indicators, directly associated with the _____. Include name, (iv) reference designator, (v) positions, (vi) colors, and (vii) location.</p>
1-3.	<b>FUNCTIONAL DESCRIPTION</b>
1-3-1.	<p>Describe how the _____ works (functional operation). Include (i) methods of control, (ii) signal flow, (iii) sequential operation, and (iv) indications.</p> <p>a. (Equipment – list major components, subassemblies, and functional areas)          (Subsystem – list equipment)          (System – list subsystems)</p> <p>-Or-</p>
1-3-2.	<p>Describe how the _____ works (functional operation). Include (as applicable): types of signals, signal flow, sequential operation, coding, indication, frequencies, modes, inputs and outputs, signal exchange, signal generation, timing relationship of signals, sequence of events, logic elements, circuits and registers involved, integration of circuits or elements to perform loop functions, signal/data format, power supplies, and protective devices.</p>

TABLE 2. ESS MODEL STATEMENTS (Sheet 5 of 8)

1-3-3.	Describe how loops within the _____ work (functional operation). Include (as applicable): method of control, signal flow, sequential operation, indications, types of signals, coding, frequencies, modes, inputs and outputs, signal exchange, signal generation, timing relationship of signals, sequence of events, phase-lock loops, logic elements, circuits and registers involved, integration of circuits or elements to perform loop functions, signal/data format, power supplies, and protective devices.
1-3-4.	Describe the functions of each (i) control and (ii) indicator in each (iii) position, (iv) condition, and (v) color.
1-3-5.	Describe each program, sub-program, routine, command, instruction, code, option, etc. used with the _____. Include name, (i) program number, and (ii) assumptions and constraints imposed.
1-4.	INTERFACE DESCRIPTION
1-4-1.	Describe the physical interface between the _____ and related external equipments. Include (i) name (ii) physical appearance, (iii) reference designator, and (iv) locations.  a. (List applicable electrical, hydraulic, mechanical, or pneumatic connections).
1-4-2.	Describe functional interface between the _____ and related external equipments.  a. Electrical (power source)  b. Electronic (input, output, and control signals)  c. Pneumatic (gases of any type: e.g., nitrogen, freon, air, helium, etc.)  d. Hydraulic (liquids of any type: e.g., water, hydraulic oil, lube oil, etc.)  e. Mechanical  (1) Structural or Hull (2) Shafts, gears, springs, etc.

**TABLE 2. ESS MODEL STATEMENTS (Sheet 6 of 8)**

1-5.	OPERATIONAL DESCRIPTION
1-5-1.	No operation involved. (Inserted when the equipment, subsystem, or system requires no operator action) -Or- Describe the authority and regulations pertaining to the operation of the _____, including external equipments which interface with it.
1-5-2.	Describe operational tasks to perform on the _____. a. Pre-operational procedures. (1) Routine (GO/NO-GO, Self test, etc.) (2) Installation (3) Assembly b. Operational procedures c. Post-operational procedures
1-5-3.	Describe indications which should or may occur during operation of the _____. Include (i) alarms, (ii) indicators, (iii) displays, (iv) readouts, and (v) printouts/typeouts.
1-5-4.	Describe (i) casualty, (ii) degraded, (iii) abnormal, (iv) not full mission capable modes of operation of the _____.
1-5-5.	Describe (i) interpretation, (ii) function, (iii) use, and (iv) format of tapes punched under computer control of the _____.
1-5-6.	Describe the data logging requirements for the _____. Include (i) logging method, (ii) type of data logged, and (iii) disposition.
1-5-7.	Describe all acceptance tests for the _____.
1-5-8.	Describe security requirements to be observed during operation of the _____.
1-5-9.	Describe personnel and equipment safety precautions which are to be observed during operation of the _____.

**TABLE 2. ESS MODEL STATEMENTS (Sheet 7 of 8)**

1-6.	MAINTENANCE DESCRIPTION
1-6-1.	<p>Define the maintenance policy for the _____.</p> <ul style="list-style-type: none"> <li>a. Preventive maintenance – the requirement for periodic performance of tasks to minimize equipment malfunctions. <ul style="list-style-type: none"> <li>(1) Servicing – scheduled or unscheduled inspections, cleaning, fueling, lubrication, corrosion control, and any other function in support of maintaining any equipment full mission capable.</li> <li>(2) Operational checks (confidence or self tests) <ul style="list-style-type: none"> <li>(a) Pre-maintenance procedures</li> <li>(b) Performance checks</li> <li>(c) Degradation/deterioration checks</li> <li>(d) Quality Assurance checks</li> </ul> </li> <li>(3) Progressive maintenance (if applicable) – periodic refurbishment of components or assemblies in order to maintain levels of performance or reliability.</li> </ul> </li> <li>b. Corrective maintenance – checks and procedures used to locate and correct malfunctions. <ul style="list-style-type: none"> <li>(1) Authorized repair responsibility – correction of malfunctions to the authorized maintenance level.</li> <li>(2) Fault isolation – location of faults to the level of available spares and authorized repair level. <ul style="list-style-type: none"> <li>(a) Equipment operational checks and tests.</li> <li>(b) Fault isolation tests and procedures.</li> </ul> </li> <li>(3) Analytical procedures – isolation of faults using authorized methods not contained in prescribed maintenance documentation.</li> </ul> </li> </ul>

**TABLE 2. ESS MODEL STATEMENTS (Sheet 8 of 8)**

1-6-1 - cont.	(4) Post-maintenance procedures – procedures performed after repair including quality assurance checks.
1-6-2.	Describe the use of (i) special tools and (ii) test equipment required for maintenance of the _____ as prescribed in applicable maintenance documentation.
1-6-3.	Describe preventive maintenance procedures for the _____. Include recognition and interpretation of all indications, (i) records, (ii) reports and instructions.
1-6-4.	Describe (i) alignment, (ii) adjustment, and (iii) calibration procedures for the _____.
1-6-5.	Describe the (i) operational tests and (ii) diagnostic programs, as applicable, for maintenance of the _____. (iii) Include the test names, uses, and procedures.
1-6-6.	Describe the recognition and interpretation of all malfunction indications for the _____.
1-6-7.	Describe the systematic fault isolation procedures contained in prescribed maintenance documentation for the _____.
1-6-8.	Describe authorized methods to isolate faults which cannot be located using procedures contained in prescribed documentation.
1-6-9.	Describe the procedures to (i) disassemble, (ii) repair, and (iii) reassemble the _____ to the authorized maintenance level. (Not applicable to the subsystem and system PPP model statements.)
1-6-10.	Describe the post repair procedures for the _____.
1-6-11.	Describe the personnel and equipment safety precautions which are to be observed when performing maintenance on the _____.

### **Non-hardware Model Statements**

Use Tables 3 and 4 to develop Non-hardware PPP Line Items. When completed, all Task/Function and Background PPP Table Line Items will be extracted from these tables.

### **Task/Function Model Statements**

In order to write comprehensive Task/Function PPP Line Items, follow the guidelines given below when using the Task/Function Model Statements Table

1. Name the Task/Function.
2. Check for the correctness of ending of the Task/Function name:
  - a. ....ing
  - b. ....ion
  - c. ....ment
3. List the duties that comprise this Task/Function (Duty: Major subdivisions of work that comprise a Task/Function):

Task/Function Duty 1  
Task/Function Duty 2  
Task/Function Duty 3  
Task/Function Duty 4

4. Insert each duty into the Task/Function PPP Table, beginning at PPP line item 2.1.4 and continuing through 2.1.X. (The number of duties for a Task/Function usually runs 3-7.)

2.1.4 *Duty 1*  
2.1.5 *Duty 2*  
2.1.6 *Duty 3*  
2.1.7 *Duty 4*

5. List the skills which comprise a duty

- 2.1.4.1 *Duty 1, Skill 1*
- 2.1.4.2 *Duty 1, Skill 2*
- 2.1.4.3 *Duty 1, Skill 3*
- 2.1.4.4 *Duty 1, Skill 4*

6. List the knowledge which directly supports the skill

- 1.1.4.1 *Duty 1, Skill 1, Knowledge 1*
- 1.1.4.2 *Duty 1, Skill 1, Knowledge 2*
- 1.1.4.3 *Duty 1, Skill 1, Knowledge 3*
- 1.1.4.4 *Duty 1, Skill 1, Knowledge 4*

7. List the knowledge which indirectly supports the skill

- 1.1.4.5 *Duty 1, Skill 1, Knowledge 5*
- 1.1.4.6 *Duty 1, Skill 1, Knowledge 6*
- 1.1.4.7 *Duty 1, Skill 1, Knowledge 7*
- 1.1.4.8 *Duty 1, Skill 1, Knowledge 8*

8. Continue to Table 3 and proceed with filling in the appropriate spaces



TABLE 3. TASK/FUNCTION MODEL STATEMENTS (Sheet 1 of 2)

1.	KNOWLEDGE
1-1.	GENERAL
1-1-1.	State the purpose of _____.
1-1-2.	Define the abbreviations, terms, and symbols associated with _____.
1-1-3.	Describe the responsibilities of _____. -LIST ALL RESPONSIBILITIES OF COORDINATORS, DIRECTORS, PERFORMERS, AND WATCHSTANDERS-
1-1-4.	Describe all applicable documentation associated with _____.
1-1-5.	Describe policies associated with _____. -LIST ALL POLICIES OF COORDINATORS, DIRECTORS, PERFORMERS, AND WATCHSTANDERS-
1-2.	PROCEDURAL
1-2-1.	State the safety precautions associated with _____.
1-2-2.	State the security requirements associated with the _____.
1-2-3.	Describe the administrative procedures associated with _____. -LIST ALL ADMINISTRATIVE PROCEDURES REQUIRED OF COORDINATORS, DIRECTORS, PERFORMERS, AND WATCHSTANDERS-
1-2-4.	Describe the tasks associated with (Duty #1). a. Task #1 to support duty b. Task #2 to support duty c. Task X.X, etc., to support duty
1-2-5.	Describe the tasks associated with (Duty #2). a. Task #1 to support duty b. Task #2 to support duty c. Task X.X, etc., to support duty
1-2-6.	Continue task descriptions for each duty identified above.

TABLE 3. TASK/FUNCTION MODEL STATEMENTS (Sheet 2 of 2)

2.	SKILLS
2-1.	PROCEDURES
2-1-1.	Adhere to all safety precautions associated with _____.
2-1-2.	Adhere to all security procedures associated with _____.
2-1-3.	Perform all administrative procedures associated with _____.
2-1-4.	Perform the tasks associated with (Duty #1)  a. Task #1 to support duty b. Task #2 to support duty c. Task #3 to support duty d. Task X.X., etc., to support duty
2-1-5.	Perform the tasks associated with (Duty #2)  a. Task #1 to support duty b. Task #2 to support duty c. Task #3 to support duty d. Task X.X., etc., to support duty
2-1-6.	Continue task descriptions for each duty identified above.

## **Background Model Statements**

In order to write comprehensive Background PPP Table Line Items, follow the guidelines given below when using the Background Model Statements Table

1. Determine the "Background" subject matter and the content areas within (i.e.; MATHEMATICS – Arithmetic, Algebra, Geometry, etc.), required to survive in the course, i.e.; needed in order to learn the operation/maintenance of the specific hardware, or the function, or other background material being taught.
2. Analyze that part of the Trainee population which will enter the projected course; determine the *subject matter*, and *content areas within*, that this trainee population is deficient in
3. This *subject matter*, and *content areas within*, forms the basis for the Background skills and knowledge for the course
4. Check existing Background PPP Tables for these skills and knowledge
5. If these skills and knowledge are not contained within an existing Background PPP Table add to an existing PPP Table, or create a new Background PPP Table – IF APPROPRIATE
  - a. Brainstorm, preferably with other subject matter experts, the specific knowledge and skills that are required to survive the course
  - b. Obtain reliable references, or texts, from the subject matter area and use them to organize, complete, and assure correctness of the Background PPP Table

**TABLE 4. BACKGROUND MODEL STATEMENTS**

1.	KNOWLEDGE
1-1.	Define the abbreviations, terms and symbols associated with _____.
1-2.	Describe the principles associated with _____.
1-3.	Describe the theories associated with _____.
1-4.	Describe the formulas associated with _____.
1-5.	Describe the purpose of (an associated device or physical object – where applicable)
1-6.	Describe the characteristics of (an associated device or physical object – where applicable)
2.	SKILLS
2-1.	Use _____.
2-2.	Apply _____.
2-3.	Analyze _____.
2-4.	Recognize _____.
2-5.	Recall _____.
2-6.	Evaluate _____.
2-7.	Observe _____.
<p align="center"><b>See Table 5 for a listing of additional knowledge and skill verbs</b></p>	

**TABLE 5. VERB LISTING**

<b>Physical Skills</b>	<b>Mental Skills</b>	<b>Administrative Skills</b>	<b>Knowledge Communication</b>
accomplish adjust align balance calibrate change check clean complete construct correct deenergize demonstrate disassemble energize enter exchange inspect install isolate locate manipulate measure move operate perform plot position reassemble remove repair replace show start stop test trace troubleshoot use utilize	achieve analyze calculate choose compare compute condense decide derive determine diagnose distinguish evaluate interpret monitor observe rank recognize select solve sort synthesize	administer coordinate decide draw fill out instruct list manage organize plan report submit	communicate define describe explain express identify illustrate list name state summarize tell write

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PPP TABLE DEVELOPMENT

**CURRICULUM DEVELOPER AID**  
**FOR**  
**EQUIPMENT**  
**PERSONNEL PERFORMANCE PROFILE**  
**TABLES**

Obtain the following resources:

- Technical documentation
- SMEs
- Job Task Inventory
- ESS PPP Model Statements Table 2

1. Start the development of an equipment PPP by obtaining two blank pieces of paper, then:
  - a. On one blank piece of paper put the heading "Page A." Immediately below this heading write "2. Equipment Skills." Below the heading "2. Equipment Skills" write "2-1 Operation."
  - b. On the other blank piece of paper put the heading "Page B." Immediately below this heading write "1. Equipment Knowledge." Below the heading "1. Equipment Knowledge" write "1-5 Operational Description."
2. Is there any technical documentation required for use with the equipment?
  - a. If yes, near the bottom of page B write "1-7. Documentation" and select line item 1-7-1 from the Model Statement table and write it on Page B below the heading "1-7. Documentation."
  - b. If no, continue to step 3
3. Are there any actions one must take to make this equipment perform the purpose it was designed for?
  - a. If yes, select line item 2-1-1 (but not subitems) from the Model Statement table and write it below the heading "2-1. Operation" on Page A. Select line item 1-5-1 from the Model Statement table and write it below the heading "1-5. Operational Description" on Page B. Select line item 1-5-2 from the Model Statement table and write it on Page B below the last line item listed.
  - b. If no, write "No operation required" below "2-1. Operation" on Page A and write "No operation required" on Page B below the heading "1-5. Operational Description," then go to step 28 b(2).

4. Are there any equipment preoperations required?
  - a. If yes, select subitem 2-1-1a from the Model Statement table and write it on Page A below line item 2-1-1. Select subitem 1-5-2a from the Model Statement table and write it on Page B below line item 1-5-2.
  - b. If no, go to step 7
5. Are there any routine preoperational procedures which must be performed prior to the operational procedures?
  - a. If yes, select subitem 2-1-1a (1) from the Model Statement table and write it on Page A below subitem 2-1-1a. Select subitem 1-5-2a (1) from the Model Statement table and write it on Page B below subitem 1-5-2a.
  - b. If no, continue to step 6
6. Does this equipment have to be installed into a specific location prior to operation?
  - a. If yes, select subitem 2-1-1a (2) from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2a (2) from the Model Statement table and write it on Page B below the last item/subitem listed.
  - b. If no, continue to step 7
7. Does this equipment have to be assembled prior to operation?
  - a. If yes:
    - (1) Select subitem 2-1-1a (3) from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2a (3) from the Model Statement table and write it on Page B below the last item/subitem listed.
    - (2) Select subitem 2-1-1b from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2b from the Model Statement table and write it on Page B below the last item/subitem listed.



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PPP TABLE DEVELOPMENT

- b. If no, select subitem 2-1-1b from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2b from the Model Statement table and write it on Page B below the last item/subitem listed.
- 8. Are there any procedures that must be performed after the equipment has been operated?
  - a. If yes, select subitem 2-1-1c from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2c from the Model Statement table and write it on Page B below the last item/subitem listed.
  - b. If no, continue to step 9
- 9. Are there any critical operator actions required to keep the equipment operating properly?
  - a. If yes, select line item 2-1-2 from the Model Statement table and write it on Page A below the last item/subitem. Select line item 1-5-3 from the Model Statement table and write it on Page B below the last item/subitem.
  - b. If no, go to step 15
- 10. Does this equipment have any alarms?
  - a. If yes, select line item 1-5-3 part (i) from the Model Statement table and write onto Page B as line item 1-5-3
  - b. If no, continue to step 11
- 11. Does this equipment have any indicators?
  - a. If yes, select line item 1-5-3 part (ii) from the Model Statement table and incorporate into line item 1-5-3 on Page B
  - b. If no, continue to step 12
- 12. Does this equipment have any displays?

- a. If yes, select line item 1-5-3 (iii) from the Model Statement table and incorporate into line item 1-5-3 on Page B
  - b. If no, continue to step 13
13. Does this equipment have any readouts?
- a. If yes, select line item 1-5-3 part (iv) from the Model Statement table and incorporate into line item 1-5-3 on Page B
  - b. If no, continue to step 14
14. Does this equipment have any printouts or typeouts?
- a. If yes, select line item 1-5-3 part (v) from the Model Statement table and incorporate into line item 1-5-3 on Page B
  - b. If no, continue to step 15
15. Does this equipment have specific casualty modes of operation?
- a. If yes, select line item 2-1-3 part (i) from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-4 part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 16
16. Does this equipment have a specifically designated degraded mode of operation?
- a. If yes, select line item 2-1-3 part (ii) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (ii) from the Model Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.
  - b. If no, continue to step 17
17. Does this equipment have a specifically designated abnormal mode of operation?

- a. If yes, select line item 2-1-3 part (iii) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (iii) from the Model Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.
  - b. If no, continue to step 18
18. Does this equipment have a designated not full mission capable mode of operation?
- a. If yes, select line item 2-1-3 part (iv) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (iv) from the Model Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.
  - b. If no, continue to step 19
19. Is this equipment a type of computer which produces tapes, disks, or diskettes?
- a. If yes, select line item 2-1-4 from the Model Statement table and write it on Page A below the last line item/subitem listed
  - b. If no, go to step 24
20. Must these tapes, disks, or diskettes be interpreted to support equipment operation?
- a. If yes, select line item 1-5-5 part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed
  - b. If no, continue to step 21
21. Must the function of these tapes, disks, or diskettes be understood to support equipment operation?
- a. If yes, select line item 1-5-5 part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.

- b. If no, continue to step 22
- 22. Must the use of these tapes, disks, or diskettes be understood to support equipment operation?
  - a. If yes, select line item 1-5-5 Part (iii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.
  - b. If no, continue to step 23
- 23. Must the format of these tapes, disks, or diskettes be understood to support equipment operation?
  - a. If yes, select line item 1-5-5 Part (iv) from the Model Statement table and write it on Page B below the last item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.
  - b. If no, continue to step 24
- 24. Are there any data logging requirements involved with the operation of this equipment?
  - a. If yes, select line item 2-1-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-6 from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, go to step 28
- 25. Are there specific methods that must be followed to meet data logging requirements?
  - a. If yes, select line item 1-5-6 Part (i) from the Model Statement table and incorporate it on Page B with the previously selected part of line item 1-5-6
  - b. If no, continue to step 26

26. Are there specific types of data to be logged to support data logging requirements?
- If yes, select line item 1-5-6 Part (ii) from the Model Statement table and incorporate it on Page B with the previously selected parts of line item 1-5-6
  - If no, continue to step 27
27. Is a knowledge of the disposition of logged data required to support data logging requirements?
- If yes, select line item 1-5-6 Part (iii) from the Model Statement table and incorporate it on Page B with the previously selected parts of line item 1-5-6
  - If no, continue to step 28
28. Are there acceptance tests which must be performed when this equipment is operated?
- If yes:
    - (1) Select line item 2-1-6 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-7 from the Model Statement table and write it on Page B below the last line item/subitem listed. Select line items 2-1-7 and 2-1-8 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-5-8 and 1-5-9 from the Model Statement table and write it on Page B below the last line item/subitem listed.
    - (2) Below the last line item/subitem listed on Page A write "2-2. Maintenance." Below the last line item/subitem listed on Page B write "1-6. Maintenance Description." Below the maintenance description heading on Page B write out line item 1-6-1 from the Model Statement table.

b. If no:

- (1) Select line items 2-1-7 and 2-1-8 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-5-8 and 1-5-9 from the Model Statement table and write it on Page B below the last line item/subitem listed.
- (2) Below the last line item/subitem listed on Page A write "2-2. Maintenance." Below the last line item/subitem listed on Page B write "1-6. Maintenance Description." Below the maintenance description heading on Page B write out line item 1-6-1 from the Model Statement table.

29. Is any special tool unique to this equipment used during either preventive or corrective maintenance?

- a. If yes, select line item 2-2-1 Part (i) from the Model Statement table and write it on Page A below the Maintenance heading. Select line item 1-6-2 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.

b. If no, continue to step 30

30. Is any test equipment unique to this equipment used during preventive or corrective maintenance?

- a. If yes, select line item 2-2-1 Part (ii) from the Model Statement table and write it on Page A below the Maintenance heading. Incorporate it with any other parts of line item 2-2-1 previously selected. Select line item 1-6-2 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-6-2 previously selected.

b. If no, continue to step 31

31. Does this equipment have required preventive maintenance procedures?

- a. If yes, select line item 2-2-2 from the Model Statement table and write it on Page A below the last line item/subitem listed. Based on the Preventive Maintenance System in use for this equipment select line item 2-2-2 Part (i), 2-2-2 Part (ii) or 2-2-2 Part (iii) and incorporate it into the previously selected part of line item 2-2-2 on page A. Select line item 1-6-3 from the Model

Statement table and write it on Page B below the last line item/subitem listed.

b. If no, go to step 34

32. Are there any records that must be kept for preventive maintenance?

a. If yes, select line item 1-6-3 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-3 previously selected.

b. If no, continue to step 33

33. Are there any reports which must be made for preventive maintenance?

a. If yes, select line item 1-6-3 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-3 previously selected.

b. If no, continue to step 34

34. Are there any alignment procedures for this equipment?

a. If yes, select line item, 2-2-3 Part (i) from the Model Statement table and write it on Page A below the last line item/subitem selected. Select line item 1-6-4 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.

b. If no, continue to step 35

35. Are there any adjustment procedures for this equipment?

a. If yes, select line item 2-2-3 Part (ii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-3 previously selected. Select line item 1-6-4 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-4 previously selected.

b. If no, continue to step 36

36. Are there any calibration procedures for this equipment?
- a. If yes, select line item 2-2-3 Part (iii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-3 previously selected. Select line item 1-6-4 Part (iii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of the line item 1-6-4 previously selected.
  - b. If no, continue to step 37
37. Are there any operational tests performed during preventive or corrective maintenance for this equipment?
- a. If yes, select line item 2-2-4 Part (i) from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-5 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 38
38. Are there any diagnostic programs used during preventive or corrective maintenance for this equipment?
- a. If yes, select line item 2-2-4 Part (ii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-4 previously selected. Select line item 1-6-5 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-5 previously selected.
  - b. If no, continue to step 39
39. Were either Part (i), or Part (ii) of line item 1-6-5 selected?
- a. If yes, select line item 1-6-5 Part (iii) from the Model Statement table and incorporate it in the parts of line item 1-6-5 previously listed on Page B. Select line item 2-2-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-6 from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, select line item 2-2-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-6 from



the Model Statement table and write it on Page B below the last line item/subitem listed.

40. Are there fault isolation procedures contained in the technical documentation for this equipment?

a. If yes, select line item 2-2-6 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-7 from the Model Statement table and write it on Page B below the last line item/subitem listed.

b. If no, continue to step 41

41. Does the technical documentation for this equipment provide documented fault isolation procedures that cover all possible faults?

a. If yes, continue to step 42

b. If no, select line item 2-2-7 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-8 from the Model Statement table and write it on Page B below the last line item/subitem listed.

42. Is repair of this equipment possible?

a. If yes, select line item 2-2-8 Part (ii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-9 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed.

b. If no, go to step 44 b

43. To repair this equipment, must it be disassembled either in whole or in part?

a. If yes, select line item 2-2-8 Part (i) and Part (iii) from the Model Statement table and write it on Page A, incorporating it into the part of 2-2-8 previously selected. Select line item 1-6-9 Part (i) and Part (iii) from the Model Statement table and write it on Page B, incorporating it into the part of 1-6-9 previously selected.

b. If no, continue to step 44

44. Are there any procedures which must be performed after the repair of this equipment?

a. If yes, select line item 2-2-9 from the Model Statement table and write it on

- Page A below the last line item/subitem listed. Select line item 1-6-10 from the Model Statement table and write it on Page B below the last line item/subitem listed. Select line items 2-2-10 and 2-2-11 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-6-11 and 1-6-12 from the Model Statement table and write it on Page B below the last line item/subitem listed. Number all line items on Page A sequentially starting with number 2-1-1 for operational skills and 2-2-1 for maintenance skills. Number all line items on Page B sequentially starting with numbers 1-5-1 for line items in the operational description and 1-6-1 for line items in the maintenance description.
- b. If no, select line items 2-2-10 and 2-2-11 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-6-11 and 1-6-12 from the Model Statement table and write it on Page B below the last line item/subitem listed. Number all line items on Page A sequentially starting with number 2-1-1 for operational skills and 2-2-1 for maintenance skills. Number all line items on Page B sequentially starting with numbers 1-5-1 for line items in the operational description and 1-6-1 for line items in the maintenance description.
45. On a blank piece of paper write the heading "1. Equipment Knowledge." On the same paper write "1-1. General" below the heading. This paper will be referred to as Page 1. On page 1, below the sub-heading, write line item 1-1-1 from the Model Statement table. Number this line item 1-1-1. On page 1 below line item 1-1-1, write line item 1-1-2 from the Model Statement table. Number this line item 1-1-2. Write out the necessary subitems as required. These are identified sequentially by small letters (a, b, c, etc.).
46. Are there abbreviations unique to this equipment?
- a. If yes, select line item 1-1-3 Part (i) from the Model Statement table and write on Page 1 below the last line item/subitem listed
  - b. If no, continue to step 47
47. Are there terms unique to this equipment?
- a. If yes, select line item 1-1-3 Part (ii) from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Incorporate it into any other parts of line item 1-1-3 previously selected.
  - b. If no, continue to step 48
48. Are there symbols unique to this equipment?

- a. If yes, select line item 1-1-3 Part (iii) from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Incorporate it into any other parts of line item 1-1-3 previously selected. Select line item 1-1-4 from the Model Statement table and write it on Page 1 below the last line item/subitem listed.
  - b. If no, select line item 1-1-4 from the Model Statement table and write it on Page 1 below the last line item/subitem listed
49. Does this equipment have different models?
- a. If yes, select line item 1-1-5 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Select line item 1-1-6 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Ensure all line items listed on Page 1 are numbered sequentially starting with line item 1-1-1. On a blank piece of paper write the following heading: "1-2. Physical Description." This paper will be referred to as Page 2. Select line item 1-2-1 Part (i) from the Model Statement table and write it on Page 2 below the heading.
  - b. If no, select line item 1-1-6 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Ensure all line items listed on Page 1 are numbered sequentially starting with line item 1-1-1. On a blank piece of paper write the following heading: "1-2. Physical Description." This paper will be referred to as Page 2. Select line item 1-2-1 Part (i) from the Model Statement table and write it on Page 2 below the heading.
50. Do the major and associated components of this equipment have specific nomenclature?
- a. If yes, below line item 1-2-1 on Page 2 list out all the major components, subassemblies, and functional areas of the equipment. These will be subitems to line 1-2-1. They are identified sequentially by small letters (a, b, c, etc.). Select line item 1-2-1 Part (ii) from the Model Statement table and write it on Page 2 incorporating it into any other part of line item 1-2-1 previously selected.
  - b. If no, continue to step 51
51. Is an understanding of the physical appearance of the major components required?
- a. If yes, select line item 1-2-1 Part (iii) from the Model Statement table and write it on Page 2, incorporating it into any other part of line item 1-2-1 previously selected

- b. If no, continue to step 52
- 52. Do the major components have reference designators?
  - a. If yes, select line item 1-2-1 Part (iv) from the Model Statement table and write it on Page 2, incorporating it into any other part of line item 1-2-1 previously selected
  - b. If no, continue to step 53
- 53. Is an understanding of the location of the major components required?
  - a. If yes, select line item 1-2-1 Part (v) from Model Statement table and write it on Page 2, incorporating it into any other part of line item 1-2-1 previously selected
  - b. If no, continue to step 54
- 54. Is an understanding of the construction features of the major components required?
  - a. If yes, select line item 1-2-1 Part (vi) from the Model Statement table and write it on Page 2, incorporating it into any part or the line item 1-2-1 previously selected
  - b. If no, continue to step 55
- 55. Does this equipment have any displays?
  - a. If yes, select line item 1-2-2 Part (i) from the Model Statement table and write it on Page 2 below the last line item/subitem listed
  - b. If no, continue to step 56
- 56. Does this equipment have any controls?
  - a. If yes, select line item 1-2-2 Part (ii) from the Model Statement table and write it on page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.
  - b. If no, continue to step 57
- 57. Does this equipment have any indicators?
  - a. If yes, select line item 1-2-2 Part (iii) from the Model Statement table and

write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-2-2 previously selected.

- b. If no, continue to step 58

58. Do the displays, controls, or indicators have reference designators?

- a. If yes, select line item 1-2-2 Part (iv) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line 1-2-2 previously selected.

- b. If no, continue to step 59

59. Do the displays, controls, or indicators have specific positions?

- a. If yes, select line item 1-2-2 Part (v) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.

- b. If no, continue to step 60

60. Do the displays, controls, or indicators have specific colors?

- a. If yes, select line item 1-2-2 Part (vi) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.

- b. If no, continue to step 61

61. Do the displays, controls, or indicators have specific locations?

- a. If yes, select line item 1-2-2 Part (vii) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-2-2 previously selected. Ensure the two line items on Page 2 are numbered 1-2-1 and 1-2-2. On a blank piece of paper write the following heading: "1-3. Functional Description." This paper will be referred to as Page 3.

- b. If no, ensure the two line items on Page 2 are numbered 1-2-1 and 1-2-2. On a blank piece of paper write the following heading: "1-3. Functional Description." This paper will be referred to as Page 3.

62. Is this equipment a computer or complex electro-mechanical device with various control circuits?

- a. If yes, select line item 1-3-1 (Part B) from the Model Statement table. Write the statement on Page 3 immediately below the heading and label it 1-3-1. Select the appropriate terms from the statement and incorporate them into a single statement on Page 3 with the selected Model Statement. Then go to step 67.
  - b. If no, select line item 1-3-1 (Part A) from the Model Statement table. Write the statement on Page 3 immediately below the heading and label it 1-3-1.
63. Does this equipment have specific methods of control?
- a. If yes, select line item 1-3-1 Part (i) from the Model Statement table and write it on Page 3, incorporating it into the part of line item 1-3-1 previously selected
  - b. If no, continue to step 64
64. Is an understanding of signal flow within this equipment required?
- a. If yes, select line item 1-3-1 Part (ii) from the Model Statement table and write it on Page 3, incorporating it into the parts of line item 1-3-1 previously selected
  - b. If no, continue to step 65
65. Does this equipment operate in a specific sequence?
- a. If yes, select line item 1-3-1 Part (iii) from the Model Statement table and write it on Page 3, incorporating it into any other parts of line item 1-3-1 previously selected
  - b. If no, continue to step 66
66. Does this equipment have any indications that it is operating in various methods/modes, etc?
- a. If yes, select line item 1-3-1 Part (iv) from the Model Statement table and write it on Page 3, incorporating it into any other parts of line item 1-3-1 previously selected. Immediately below the last part of line item 1-3-1 listed, list out the major functional areas, components, and subassemblies of the equipment. These will be subitems to line item 1-3-1. They are identified by sequential small letters (a, b, c, etc.).
  - b. If no, immediately below the last part of line item 1-3-1 listed, list out the major functional areas, components, and subassemblies of the equipment.

These will be subitems to line item 1-3-1. They are identified by sequential small letters (a, b, c, etc.).

67. Does this equipment have functional loops within it allowing for proper operation?
- a. If yes, select line item 1-3-2 from the Model Statement table and write it on Page 3 below the last line subitem listed. Review line item 1-3-2 from the Model Statement table and select the appropriate terms. Incorporate them into a single statement with line item 1-3-2 on Page 3.
  - b. If no, continue to step 68
68. Does this equipment have any controls?
- a. If yes, select line item 1-3-3 Part (i) from the Model Statement table and write it on page 3 below the last line item/subitem listed
  - b. If no, continue to step 69
69. Does this equipment have any indicators?
- a. If yes, select line item 1-3-3 Part (ii) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other part of line item 1-3-3 previously listed.
  - b. If no, continue to step 70
70. Do the displays, controls, or indicators have any specific positions?
- a. If yes, select line item 1-3-3 Part (iii) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 71
71. Do the controls or indicators of this equipment have specific conditions?
- a. If yes, select line item 1-3-3 Part (iv) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 72
72. Do the displays, controls, or indicators have specific colors?

- a. If yes, select line item 1-3-3 Part (v) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 73
73. Is this equipment a computer or other type of device that is programmable?
- a. If yes, select line item 1-3-4 from the Model Statement table and write it on Page 3 below the last line item/subitem listed
  - b. If no, go to step 75 a(2)
74. Do the programs associated with this equipment have specific numbers?
- a. If yes, select line item 1-3-4 Part (i) from the Model Statement table and write it on Page 3, incorporating it into the part of line item 1-3-4 previously selected
  - b. If no, continue to step 75
75. Does the use of any associated programs impose any type of constraints on operational or maintenance procedures?
- a. If yes:
    - (1) Select line item 1-3-4 Part (ii) from the Model Statement table and write it on Page 3, incorporating it into the parts of line item 1-3-4 previously selected
    - (2) Number the line items on Page 3 sequentially, beginning with number 1-3-1. On a blank piece of paper write the following heading "1-4. Interface Description." On page 4 below the heading write line item 1-4-1 Part (i) from the Model Statement table.
  - b. If no, number the line items on Page 3 sequentially, beginning with number 1-3-1. On a blank piece of paper write the following heading "1-4. Interface Description." On page 4 below the heading write line item 1-4-1 Part (i) from the Model Statement table.
76. Is an understanding of the physical appearance of the physical interface required?



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PPP TABLE DEVELOPMENT

- a. If yes, select line item 1-4-1 Part (ii) from the Model Statement table and write it on Page 4, incorporating it into the part of line item 1-4-1 previously selected
  - b. If no, continue to step 77
77. Does the physical interface of this equipment have reference designators?
- a. If yes, select line item 1-4-1 Part (iii) from the Model Statement table and write it on Page 4, incorporating it into the parts of line item 1-4-1 previously selected
  - b. If no, continue to step 78
78. Does the physical interface of this equipment have specific locations?
- a. If yes, select line item 1-4-1 Part (iv) from the Model Statement table and write it on Page 4, incorporating it into the parts of line item 1-4-1 previously selected. Immediately below the last part of line item 1-4-1 listed, list out the physical interface and related external equipment which make up the equipment, subsystem, or system. These will be subitems to line item 1-4-1. They are identified by sequential small letters (a, b, c, etc.). Select line item 1-4-2 from the Model Statement table and write it on Page 4 below the last line item/subitem selected.
  - b. If no, immediately below the last part of line item 1-4-1 listed, list out the physical interface and related external equipment which make up the equipment, subsystem, or system. These will be subitems to line item 1-4-1. They are identified by sequential small letters (a, b, c, etc.). Select line item 1-4-2 from the Model Statement table and write it on Page 4 below the last line item/subitem selected.
79. Are there any electrical interfaces between this equipment and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2a from the Model Statement table and write it on Page 4 below line item 1-4-2
  - b. If no, continue to step 80
80. Are there any electronic interfaces between this equipment and any other equipment, subsystem, or system?

- a. If yes, select subitem 1-4-2b from the Model Statement table and write it on Page 4 below line item 1-4-2 or subitem 1-4-2a if it was previously selected.
  - b. If no, continue to step 81
81. Are there any pneumatic interfaces between this equipment and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2c from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected
  - b. If no, continue to step 82
82. Are there any hydraulic interfaces between this equipment and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2d from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected
  - b. If no, continue to step 83
83. Are there any mechanical interfaces between this equipment and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2e from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected. Include sub-level (1) or (2) of this subitem as appropriate.
  - b. If no, continue to step 84
84. Place all the pages of this draft Personnel Performance Profile (PPP) in the following order:
- (1) Page 1
  - (2) Page 2
  - (3) Page 3
  - (4) Page 4

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- (5) Page B
- (6) Page A

85. Transfer the information from the hand-written pages to the final PPP Table form. Review the Personnel Performance Profile Table for completeness and accuracy.

Refer to Figure 2 as an example of a completed Equipment PPP Table.

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**PPP TABLE DEVELOPMENT**

PERSONNEL PERFORMANCE PROFILE
FOR
GENERAL UTILITY VEHICLES
TABLE S1036
COMMERCIAL UTILITY CARGO VEHICLE (TYPE A)
30 MARCH 1986
EQUIPMENT MODIFICATION RECORD
None
NEW DESIGN - DRAWING NUMBER
None
S1036-1/S1036-2

**FIGURE 2. Example Equipment PPP Table Cover Page**

TABLE S1036. Commercial Utility Cargo Vehicle (TYPE A) (Equipment).	
ITEM No.	KNOWLEDGE/SKILL
1.	<u>EQUIPMENT KNOWLEDGE</u>
1-1.	GENERAL
1-1-1.	State the functions of the CUCV (TYPE A).
1-1-2.	State that the CUCV (TYPE A) consists of the following major functional areas. Include the function of each. <ul style="list-style-type: none"> <li>a. Engine</li> <li>b. Transmission</li> <li>c. NP208 transfer case</li> <li>d. NP205 transfer case</li> <li>e. Front axle</li> <li>f. Rear axle</li> <li>g. Electrical system</li> <li>h. Wheels/tires</li> <li>i. Frame</li> <li>j. Body</li> <li>k. Painting/rustproofing</li> </ul>
1-1-3.	Define the abbreviations, terms, and symbols used with the CUCV (TYPE A).
1-1-4.	State the operational characteristics and capabilities of the CUCV (TYPE A).
1-1-5.	State the security requirements for the CUCV (TYPE A).
1-2.	PHYSICAL DESCRIPTION
1-2-1.	Describe all major and associated components of the CUCV (TYPE A). Include name, nomenclature, physical appearance, reference designator, location, and construction features. <ul style="list-style-type: none"> <li>a. Engine</li> <li>b. Transmission</li> <li>c. NP208 transfer case</li> <li>d. NP205 transfer case</li> <li>e. Front axle</li> <li>f. Rear axle</li> <li>g. Electrical system</li> <li>h. Wheels/tires</li> <li>i. Frame</li> <li>j. Body</li> <li>k. Painting/rustproofing</li> </ul>

**FIGURE 2. Example Equipment PPP Table**

<b>TABLE S1036. Commercial Utility Cargo Vehicle (TYPE A) (Equipment).</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-2-2.	<p>Describe displays, controls, and indicators directly associated with the CUCV (TYPE A). Include name, reference designator, positions, colors, and location.</p> <ul style="list-style-type: none"> <li>a. Steering wheel</li> <li>b. Gear shift lever</li> <li>c. Brake pedal</li> <li>d. Foot throttle pedal</li> <li>e. Four-wheel drive selector</li> <li>f. Heater/defroster</li> <li>g. Inside rearview mirror</li> <li>h. Key-operated ignition</li> <li>i. Fuel gauge</li> <li>j. Speedometer/odometer</li> <li>k. Lighted transmission dials</li> <li>l. Generator output lamp</li> <li>m. Oil pressure lamp</li> <li>n. Engine temperature lamp</li> <li>o. Glow-plug operation lamp</li> <li>p. Water-in-fuel lamp</li> <li>q. Low coolant warning lamp</li> <li>r. Seat belt warning lamp</li> <li>s. Emergency brake lever</li> </ul>
1-3.	<b>FUNCTIONAL DESCRIPTION</b>
1-3-1.	<p>Describe how the CUCV (TYPE A) works (functional operation). Include methods of control, signal flow, sequential operation, and indications.</p> <ul style="list-style-type: none"> <li>a. Engine</li> <li>b. Transmission</li> <li>c. NP208 transfer case</li> <li>d. NP205 transfer case</li> <li>e. Front axle</li> <li>f. Rear axle</li> <li>g. Electrical system</li> <li>h. Wheels/tires</li> <li>i. Frame</li> <li>j. Body</li> <li>k. Painting/rustproofing</li> </ul>

**FIGURE 2. Example Equipment PPP Table - Continued**

TABLE S1036. Commercial Utility Cargo Vehicle (TYPE A) (Equipment).	
ITEM No.	KNOWLEDGE/SKILL
1-3-2.	<p>Describe the functions of each control and indicator for the CUCV (TYPE A) in each position, condition, and color.</p> <ul style="list-style-type: none"> <li>a. Steering wheel</li> <li>b. Gear shift lever</li> <li>c. Brake pedal</li> <li>d. Foot throttle pedal</li> <li>e. Four-wheel drive selector</li> <li>f. Heater/defroster</li> <li>g. Inside rearview mirror</li> <li>h. Key-operated ignition</li> <li>i. Fuel gauge</li> <li>j. Speedometer/odometer</li> <li>k. Lighted transmission dials</li> <li>l. Generator output lamp</li> <li>m. Oil pressure lamp</li> <li>n. Engine temperature lamp</li> <li>o. Glow-plug operation lamp</li> <li>p. Water-in-fuel lamp</li> <li>q. Low coolant warning lamp</li> <li>r. Seat belt warning lamp</li> <li>s. Emergency brake lever</li> </ul>
1-4.	INTERFACE DESCRIPTION
1-4-1.	<p>Describe physical interface between CUCV (TYPE A) and related external equipments. Include name, physical appearance, reference designator, and locations.</p> <ul style="list-style-type: none"> <li>a. Multi-purpose tow hooks</li> <li>b. Pintle</li> <li>c. Exterior mirrors</li> <li>d. Brush guards</li> <li>e. Blackout lights</li> <li>f. Slave receptacle</li> <li>g. Trailer wiring</li> <li>h. Diagnostic connector assembly</li> <li>i. Tailgate</li> <li>j. Bumpers</li> <li>k. Seating/passenger restraint</li> <li>l. VRC-43 radio</li> <li>m. VRC-46 radio</li> <li>n. AS-1729 antenna</li> <li>o. Nuclear, Biological, and Chemical (NBC) kit</li> <li>p. Weapons holder</li> <li>q. AN/USQ-70</li> </ul>

FIGURE 2. Example Equipment PPP Table - Continued

<b>TABLE S1036. Commercial Utility Cargo Vehicle (TYPE A) (Equipment).</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-4-2.	Describe functional interface between the CUCV (TYPE A) and related external equipments. <ul style="list-style-type: none"> <li>a. Electrical (power sources)</li> <li>b. Electronic (input, output, and control signals)</li> <li>c. Pneumatic</li> <li>d. Hydraulic (hydraulic oil, lube oil, water, etc.)</li> <li>e. Mechanical <ul style="list-style-type: none"> <li>(1) Structural</li> <li>(2) Shafts, gears, springs</li> </ul> </li> </ul>
1-5.	<b>OPERATIONAL DESCRIPTION</b>
1-5-1.	Describe authority and regulations pertaining to the operation of the CUCV (TYPE A) including external equipments which interface with it.
1-5-2.	Describe operational tasks for CUCV (TYPE A). <ul style="list-style-type: none"> <li>a. Preoperational procedures <ul style="list-style-type: none"> <li>(1) Routine (go/no-go, self test, etc.)</li> </ul> </li> <li>b. Operational procedures</li> <li>c. Postoperational procedures</li> </ul>
1-5-3.	Describe the indications which may occur during operation of the CUCV (TYPE A). Include alarms, indicators, displays, and readouts.
1-5-4.	Describe casualty/degraded/abnormal/not full mission capable mode(s) of operation for the CUCV (TYPE A).
1-5-5.	Describe data logging requirements for the CUCV (TYPE A). Include logging method, types of data logged, and disposition.
1-5-6.	Describe all acceptance tests for the CUCV (TYPE A).
1-5-7.	Describe personnel and equipment safety precautions which are to be observed during operation of the CUCV (TYPE A).
1-6.	<b>MAINTENANCE DESCRIPTION</b>
1-6-1.	Define the maintenance policy for the CUCV (TYPE A). <ul style="list-style-type: none"> <li>a. Preventive maintenance - the requirement for periodic performance of tasks to minimize system malfunctions by doing the following:</li> </ul>

**FIGURE 2. Example Equipment PPP Table - Continued**



TABLE S1036. Commercial Utility Cargo Vehicle (TYPE A) (Equipment).	
ITEM No.	KNOWLEDGE/SKILL
1-6-1. (Cont.)	<p>(1) Servicing - scheduled or unscheduled inspections, cleaning, fueling, lubrication, corrosion control, and any other function in support of maintaining any equipment full mission capable.</p> <p>(2) Operational checks (confidence or self-test)</p> <p>(a) Pre-maintenance procedures</p> <p>(b) Performance checks</p> <p>(c) Degradation/deterioration checks</p> <p>(d) Quality assurance checks</p> <p>b. Corrective maintenance - checks and procedures used to locate and correct malfunctions as determined by the following guides:</p> <p>(1) Authorized repair responsibility to correct malfunctions to the authorized maintenance level.</p> <p>(2) Fault Isolation - Location of faults to the level of available spares and to the authorized repair level.</p> <p>(a) Equipment operation checks and tests</p> <p>(b) Fault isolation tests and procedures</p> <p>(3) Analytical procedures - isolation of faults using authorized techniques not contained in prescribed maintenance documentation.</p> <p>(4) Post-maintenance procedures - procedures performed after repair.</p>
1-6-2.	Describe the use of special tools and test equipment required for maintenance for the CUCV (TYPE A) as prescribed in applicable documentation.
1-6-3.	Describe preventive maintenance procedures for the CUCV (TYPE A). Include recognition and interpretation of indications, records, reports, and instructions.
1-6-4.	Describe alignment, adjustment, and calibration procedures for the CUCV (TYPE A).
1-6-5.	Describe operational tests used for maintenance of the CUCV (TYPE A). Include tests' names, uses, and the procedures.

**FIGURE 2. Example Equipment PPP Table - Continued**

<b>TABLE S1036. Commercial Utility Cargo Vehicle (TYPE A) (Equipment).</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-6-6.	Describe the recognition and interpretation of all malfunction indications for the CUCV (TYPE A).
1-6-7.	Describe the systematic fault isolation procedures contained in the prescribed maintenance documentation for the CUCV (TYPE A).
1-6-8.	Describe authorized methods to isolate faults on the CUCV (TYPE A), which cannot be located using procedures contained in the prescribed documentation.
1-6-9.	Describe the procedures to disassemble, repair, and reassemble the CUCV (TYPE A) to the authorized maintenance level.
1-6-10.	Describe the post-repair procedures for the CUCV (TYPE A).
1-6-11.	Describe personnel and equipment safety precautions which are to be observed while performing maintenance on the CUCV (TYPE A).
1-7.	<b>DOCUMENTATION</b>
1-7-1.	Describe the organization, content, and use of all technical documentation provided for use with the CUCV (TYPE A).
2.	<u><b>EQUIPMENT SKILLS</b></u>
2-1.	<b>OPERATION</b>
2-1-1.	Perform tasks for operation of the CUCV (TYPE A). <ul style="list-style-type: none"> <li>a. Pre-operational procedures <ul style="list-style-type: none"> <li>(1) Routine</li> </ul> </li> <li>b. Operational procedures</li> <li>c. Post-operational procedures</li> </ul>
2-1-2.	Recognize and interpret all indications occurring during performance of the operating procedures, and perform appropriate operator actions in proper sequences on the CUCV (TYPE A).
2-1-3.	Perform tasks and casualty/degraded/abnormal/not full mission capable modes of operation of the CUCV (TYPE A).

**FIGURE 2. Example Equipment PPP Table - Continued**

TABLE S1036. Commercial Utility Cargo Vehicle (TYPE A) (Equipment).	
ITEM No.	KNOWLEDGE/SKILL
2-1-4.	Perform data logging requirements for the CUCV (TYPE A).
2-1-5.	Perform acceptance tests for the CUCV (TYPE A).
2-1-6.	Adhere to personnel and equipment safety precautions during operational procedures of the CUCV (TYPE A).
2-2.	<b>MAINTENANCE</b>
2-2-1.	Use special tools and test equipment required for maintenance of the CUCV (TYPE A) as prescribed in applicable documentation.
2-2-2.	Perform preventive maintenance procedures, including quality assurance procedures, on the CUCV (TYPE A) as scheduled by the Planned Maintenance System (PMS).
2-2-3.	Perform alignment, adjustment, and calibration procedures on the CUCV (TYPE A).
2-2-4.	Perform operational tests used for maintenance of the CUCV (TYPE A).
2-2-5.	Recognize and interpret all malfunction indications for the CUCV (TYPE A).
2-2-6.	Perform schematic fault isolation on the CUCV (TYPE A), using the procedures contained in prescribed maintenance documentation.
2-2-7.	Use authorized methods to isolate faults on the CUCV (TYPE A), which cannot be located using the procedures in the prescribed maintenance documentation.
2-2-8.	Disassemble, repair, and reassemble the CUCV (TYPE A) to the authorized maintenance level.
2-2-9.	Perform post-repair procedures, including quality assurance procedures, on the CUCV (TYPE A).
2-2-10.	Adhere to personnel and equipment safety precautions when performing maintenance on the CUCV (TYPE A).

**FIGURE 2. Example Equipment PPP Table - Continued**

FEBRUARY 1993

NAVEDTRA 131, VOLUME I SUPPLEMENT  
PPP TABLE DEVELOPMENT

**CURRICULUM DEVELOPER AID  
FOR  
SUBSYSTEM  
PERSONNEL PERFORMANCE PROFILE  
TABLES**

Obtain the following resources:

- Technical documentation
  - SMEs
  - Job Task Inventory
  - ESS PPP Model Statements Table 2
1. Start the development of a subsystem PPP by obtaining two blank pieces of paper, then:
    - a. On one blank piece of paper put the heading "Page A." Immediately below this heading write "2. Subsystem Skills." Below the heading "2. Subsystem Skills" write "2-1 Operation."
    - b. On the other blank piece of paper put the heading "Page B." Immediately below this heading write "1. Subsystem Knowledge." Below the heading "1. Subsystem Knowledge" write "1-5 Operational Description."
  2. Is there any technical documentation required for use with the subsystem?
    - a. If yes, at the bottom of page B write "1-7. Documentation" and select line item 1-7-1 from the Model Statement table and write it on Page B below the heading "1-7. Documentation"
    - b. If no, continue to step 3
  3. Are there any actions a human must take to make this subsystem perform the purpose it was designed for?
    - a. If yes, select line item 2-1-1 from the Model Statement table and write it below the heading "2-1. Operation" on Page A. Select line item 1-5-1 from the Model Statement table and write it below the heading "1-5. Operational Description" on Page B. Select line item 1-5-2 from the Model Statement table and write it on Page B below the last line item listed.
    - b. If no, write "No operation required" below "2-1. Operation" on Page A and write "No operation required" on Page B below the heading "1-5. Operational Description," then go to step 28 b(2).

4. Are there any actions that must be performed on this subsystem prior to operating it?
  - a. If yes, select subitem 2-1-1a from the Model Statement table and write it on Page A below line item 2-1-1. Select subitem 1-5-2a from the Model Statement table and write it on Page B below line item 1-5-2.
  - b. If no, go to step 7
5. Are there any routine preoperational procedures which must be performed prior to the operational procedures?
  - a. If yes, select subitem 2-1-1a (1) from the Model Statement table and write it on Page A below subitem 2-1-1a. Select subitem 1-5-2a (1) from the Model Statement table and write it on Page B below subitem 1-5-2a.
  - b. If no, continue to step 6
6. Does this subsystem have to be installed into a specific location prior to operation?
  - a. If yes, select subitem 2-1-1a (2) from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2a (2) from the Model Statement table and write it on Page B below the last item/subitem listed.
  - b. If no, continue to step 7
7. Does this subsystem have to be assembled prior to operation?
  - a. If yes,
    - (1) Select subitem 2-1-1a (3) from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2a (3) from the Model Statement table and write it on Page B below the last item/subitem listed.

- (2) Select subitem 2-1-1b from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2b from the Model Statement table and write it on Page B below the last item/subitem listed.
- b. If no, select subitem 2-1-1b from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2b from the Model Statement table and write it on Page B below the last item/subitem listed.
- 8. Are there any procedures that must be performed after the subsystem has been operated?
  - a. If yes, select subitem 2-1-1c from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2c from the Model Statement table and write it on Page B below the last item/subitem listed.
  - b. If no, continue to step 9
- 9. Are there any critical operator actions required to keep the subsystem operating properly?
  - a. If yes, select line item 2-1-2 from the Model Statement table and write it on Page A below the last item/subitem. Select line item 1-5-3 part (i) from the Model Statement table and write it on Page B below the last item/subitem.
  - b. If no, go to step 15
- 10. Does this subsystem have any alarms?
  - a. If yes, select line item 1-5-3 part (i) from the Model Statement table and incorporate it into line item 1-5-3 on Page B
  - b. If no, continue to step 11
- 11. Does this subsystem have any indicators?
  - a. If yes, select line item 1-5-3 part (ii) from the Model Statement table and incorporate it into line item 1-5-3 on Page B.
  - b. If no, continue to step 12

12. Does this subsystem have any displays?
  - a. If yes, select line item 1-5-3 (iii) from the Model Statement table and incorporate it into line item 1-5-3 on Page B
  - b. If no, continue to step 13
13. Does this subsystem have any readouts?
  - a. If yes, select line item 1-5-3 part (iv) from the Model Statement table and incorporate it into line item 1-5-3 on Page B.
  - b. If no, continue to step 14
14. Does this subsystem have any printouts or typeouts?
  - a. If yes, select line item 1-5-3 part (v) from the Model Statement table and incorporate it into line item 1-5-3 on Page B
  - b. If no, continue to step 15
15. Does this subsystem have specific casualty modes of operation?
  - a. If yes, select line item 2-1-3 part (i) from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-4 part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 16
16. Does this subsystem have a specifically designated degraded mode of operation?
  - a. If yes, select line item 2-1-3 part (ii) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (ii) from the Model Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.
  - b. If no, continue to step 17



17. Does this subsystem have a specifically designated abnormal mode of operation?
  - a. If yes, select line item 2-1-3 part (iii) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (iii) from the Model Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.
  - b. If no, continue to step 18
18. Does this subsystem have a designated not full mission capable mode of operation?
  - a. If yes, select line item 2-1-3 part (iv) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (iv) from the Model Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.
  - b. If no, continue to step 19
19. Is this subsystem a type of computer which produces tapes, disks, or diskettes?
  - a. If yes, select line item 2-1-4 from the Model Statement table and write it on Page A below the last line item/subitem listed
  - b. If no, go to step 24
20. Must these tapes, disks, or diskettes be interpreted to support subsystem operation?
  - a. If yes, select line item 1-5-5 part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed
  - b. If no, continue to step 21
21. Must the function of these tapes, disks, or diskettes be understood to support subsystem operation?

- a. If yes, select line item 1-5-5 part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.
  - b. If no, continue to step 22
22. Must the use of these tapes, disks, or diskettes be understood to support subsystem operation?
- a. If yes, select line item 1-5-5 Part (iii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.
  - b. If no, continue to step 23
23. Must the format of these tapes, disks, or diskettes be understood to support subsystem operation?
- a. If yes, select line item 1-5-5 Part (iv) from the Model Statement table and write it on Page B below the last item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.
  - b. If no, continue to step 24
24. Are there any data logging requirements involved with the operation of this subsystem?
- a. If yes, select line item 2-1-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-6 from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, go to step 28
25. Are there specific methods that must be followed to meet data logging requirements?
- a. If yes, select line item 1-5-6 Part (i) from the Model Statement table and incorporate it on Page B with the previously selected part of line item 1-5-6

- b. If no, continue to step 26
- 26. Are there specific types of data to be logged to support data logging requirements?
  - a. If yes, select line item 1-5-6 Part (ii) from the Model Statement table and incorporate it on Page B with the previously selected parts of line item 1-5-6
  - b. If no, continue to step 27
- 27. Is a knowledge of the disposition of logged data required to support data logging requirements?
  - a. If yes, select line item 1-5-6 Part (iii) from the Model Statement table and incorporate it on Page B with the previously selected parts of line item 1-5-6
  - b. If no, continue to step 28
- 28. Are there acceptance tests which must be performed when this subsystem is operated?
  - a. If yes, select line item 2-1-6 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-7 from the Model Statement table and write it on Page B below the last line item/subitem listed. Select line items 2-1-7 and 2-1-8 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-5-8 and 1-5-9 from the Model Statement table and write it on Page B below the last line item/subitem listed. Below the last line item/subitem listed on Page A write "2-2. Maintenance." Below the last line item/subitem listed on Page B write "1-6. Maintenance Description." Below the maintenance description heading on Page B write out line item 1-6-1 from the Model Statement table.
  - b. If no:
    - (1) Select line items 2-1-7 and 2-1-8 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-5-8 and 1-5-9 from the Model Statement table and write it on Page B below the last line item/subitem listed.
    - (2) Below the last line item/subitem listed on Page A write "2-2. Maintenance." Below the last line item/subitem listed on Page B write "1-6. Maintenance Description." Below the maintenance description

heading on Page B write out line item 1-6-1 from the Model Statement table.

29. Is any special tool unique to this subsystem used during either preventive or corrective maintenance?
  - a. If yes, select line item 2-2-1 Part (i) from the Model Statement table and write it on Page A below the Maintenance heading. Select line item 1-6-2 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 30
30. Is any test equipment unique to this subsystem used during preventive or corrective maintenance?
  - a. If yes, select line item 2-2-1 Part (ii) from the Model Statement table and write it on Page A below the Maintenance heading. Incorporate it with any other parts of line item 2-2-1 previously selected. Select line item 1-6-2 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-6-2 previously selected.
  - b. If no, continue to step 31
31. Does this subsystem have required preventive maintenance procedures?
  - a. If yes, select line 2-2-2 from the Model Statement table and write it on Page A below the last line item/subitem listed  
  
Based on the Preventive Maintenance System in use for this subsystem select line item 2-2-2 Part (i), 2-2-2 Part (ii) or 2-2-2 Part (iii) and incorporate it into the previously selected part of line item 2-2-2 on page A. Select line item 1-6-3 from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, go to step 34
32. Are there any records that must be kept for preventive maintenance?
  - a. If yes, select line item 1-6-3 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-3 previously selected.

- b. If no, continue to step 33
- 33. Are there any reports which must be made for preventive maintenance?
  - a. If yes, select line item 1-6-3 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-3 previously selected.
  - b. If no, continue to step 34
- 34. Are there any alignment procedures for this subsystem?
  - a. If yes, select line item, 2-2-3 Part (i) from the Model Statement table and write it on Page A below the last line item/subitem selected. Select line item 1-6-4 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 35
- 35. Are there any adjustment procedures for this subsystem?
  - a. If yes, select line item 2-2-3 Part (ii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-3 previously selected. Select line item 1-6-4 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-4 previously selected.
  - b. If no, continue to step 36
- 36. Are there any calibration procedures for this subsystem?
  - a. If yes, select line item 2-2-3 Part (iii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-3 previously selected. Select line item 1-6-4 Part (iii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of the line item 1-6-4 previously selected.
  - b. If no, continue to step 37

37. Are there any operational tests performed during preventive or corrective maintenance for this subsystem?
- a. If yes, select line item 2-2-4 Part (i) from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-5 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 38
38. Are there any diagnostic programs used during preventive or corrective maintenance for this subsystem?
- a. If yes, select line item 2-2-4 Part (ii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-4 previously selected. Select line item 1-6-5 Part(ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-5 previously selected.
  - b. If no, continue to step 39
39. Were either Part (i) or Part (ii) of line item 1-6-5 selected?
- a. If yes, select line item 1-6-5 Part (iii) from the Model Statement table and incorporate it in the parts of line item 1-6-5 previously listed on Page B. Select line item 2-2-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-6 from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, select line item 2-2-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-6 from the Model Statement table and write it on Page B below the last line item/subitem listed.
40. Are there fault isolation procedures contained in the technical documentation for this subsystem?
- a. If yes, select line item 2-2-6 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-7 from

the Model Statement table and write it on Page B below the last line item/subitem listed.

- b. If no, continue to step 41
41. Does the technical documentation for this subsystem provide documented fault isolation procedures that cover all possible faults?
- a. If yes, continue to step 42
  - b. If no, select line item 2-2-7 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-8 from the Model Statement table and write it on Page B below the last line item/subitem listed.
42. Are there any procedures which must be performed after the repair of this subsystem?
- a. If yes, select line item 2-2-9 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-10 from the Model Statement table and write it on Page B below the last line item/subitem listed. Select line items 2-2-10 and 2-2-11 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-6-11 and 1-6-12 from the Model Statement table and write it on Page B below the last line item/subitem listed. Number all line items on Page A sequentially starting with number 2-1-1 for operational skills and 2-2-1 for maintenance skills. Number all line items on Page B sequentially starting with numbers 1-5-1 for line items in the operational description and 1-6-1 for line items in the maintenance description.
  - b. If no, select line items 2-2-10 and 2-2-11 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-6-11 and 1-6-12 from the Model Statement table and write it on Page B below the last line item/subitem listed. Number all line items on Page A sequentially, starting with number 2-1-1 for operational skills and 2-2-1 for maintenance skills. Number all line items on Page B sequentially, starting with numbers 1-5-1 for line items in the operational description and 1-6-1 for line items in the maintenance description.
43. On a blank piece of paper write the heading "1. Subsystem Knowledge." On the same paper write "1-1. General" below the heading. This paper will

be referred to as Page 1. On page 1, below the sub-heading, write line item 1-1-1 from the Model Statement table. Number this line item 1-1-1. On page 1, below line item 1-1-1, write line item 1-1-2 from the Model Statement table. Number this line item 1-1-2. Write out the necessary subitems as required. These are identified sequentially by small letters (a, b, c, etc.).

44. Are there abbreviations unique to this subsystem?
  - a. If yes, select line item 1-1-3 Part (i) from the Model Statement table and write on Page 1 below the last line item/subitem listed
  - b. If no, continue to step 45
45. Are there terms unique to this subsystem?
  - a. If yes, select line item 1-1-3 Part (ii) from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Incorporate it into any other parts of line item 1-1-3 previously selected.
  - b. If no, continue to step 46
46. Are there symbols unique to this subsystem?
  - a. If yes, select line item 1-1-3 Part (iii) from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Incorporate it into any other parts of line item 1-1-3 previously selected. Select line item 1-1-4 from the Model Statement table and write it on Page 1 below the last line item/subitem listed.
  - b. If no, select line item 1-1-4 from the Model Statement table and write it on Page 1 below the last line item/subitem listed
47. Does this subsystem have different models?
  - a. If yes, select line item 1-1-5 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Select line item 1-1-6 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Ensure all line items listed on Page 1 are numbered sequentially starting with line item 1-1-1. On a blank piece of paper write



the following heading: "1-2. Physical Description." This paper will be referred to as Page 2. Select line item 1-2-1 Part (i) from the Model Statement table and write it on Page 2 below the heading.

- b. If no, select line item 1-1-6 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Ensure all line items listed on Page 1 are numbered sequentially starting with line item 1-1-1. On a blank piece of paper write the following heading: "1-2. Physical Description." This paper will be referred to as Page 2. Select line item 1-2-1 Part (i) from the Model Statement table and write it on Page 2 below the heading.
48. Do the equipments of this subsystem have specific nomenclature?
- a. If yes, below line item 1-2-1 on Page 2 list out all the equipments that make up the subsystems. These will make up the subsystems to line item 1-2-1. They are identified sequentially by small letters (a, b, c, etc.). Select line item 1-2-1 Part (ii) from the Model Statement table and write it on Page 2 incorporating it into any other part of line item 1-2-1 previously selected.
  - b. If no, continue to step 49
49. Is an understanding of the physical appearance of the associated equipments required?
- a. If yes, select line item 1-2-1 Part (iii) from the Model Statement table and write it on Page 2, incorporating it into any other part of line item 1-2-1 previously selected.
  - b. If no, continue to step 50
50. Do the associated equipments have reference designators?
- a. If yes, select line item 1-2-1 Part (iv) from the Model Statement table and write it on Page 2, incorporating it into any other part of line item 1-2-1 previously selected.
  - b. If no, continue to step 51
51. Is an understanding of the location of the associated equipments required?
- a. If yes, select line item 1-2-1 Part (v) from Model Statement table and write it

on Page 2, incorporating it into any other part of line item 1-2-1 previously selected

- b. If no, continue to step 52
52. Is an understanding of the construction features of the associated equipments required?
- a. If yes, select line item 1-2-1 Part (vi) from the Model Statement table and write it on Page 2, incorporating it into any part or the line item 1-2-1 previously selected
  - b. If no, continue to step 53
53. Does this subsystem have any displays?
- a. If yes, select line item 1-2-2 Part (i) from the Model Statement table and write it on Page 2 below the last line item/subitem listed
  - b. If no, continue to step 54
54. Does this subsystem have any controls?
- a. If yes, select line item 1-2-2 Part (ii) from the Model Statement table and write it on page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.
  - b. If no, continue to step 55
55. Does this subsystem have any indicators?
- a. If yes, select line item 1-2-2 Part (iii) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-2-2 previously selected.
  - b. If no, continue to step 56
56. Do the displays, controls, or indicators have reference designators?
- a. If yes, select line item 1-2-2 Part (iv) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line 1-2-2 previously selected.
  - b. If no, continue to step 57

57. Do the displays, controls, or indicators have specific positions?
- If yes, select line item 1-2-2 Part (v) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.
  - If no, continue to step 58
58. Do the displays, controls, or indicators have specific colors?
- If yes, select line item 1-2-2 Part (vi) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.
  - If no, continue to step 59
59. Do the displays, controls, or indicators have specific locations?
- If yes, select line item 1-2-2 Part (vii) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-2-2 previously selected. Ensure the two line items on Page 2 are numbered 1-2-1 and 1-2-2. On a blank piece of paper write the following heading: "1-3. Functional Description." This paper will be referred to as Page 3.
  - If no, ensure the two line items on Page 2 are numbered 1-2-1 and 1-2-2. On a blank piece of paper write the following heading: "1-3. Functional Description." This paper will be referred to as Page 3.
60. Is this subsystem a computer or complex electro-mechanical device with various control circuits?
- If yes, select line item 1-3-1 (Part B) from the Model Statement table. Write the statement on Page 3 immediately below the heading and label it 1-3-1.  
  
Select the appropriate terms from the statement and incorporate them into a single statement on Page 3 with the selected Model Statement. Then go to step 65.
  - If no, select line item 1-3-1 (Part A) from the Model Statement table. Write the statement on Page 3 immediately below the heading and label it 1-3-1.
61. Does this subsystem have specific methods of control?
- If yes, select line item 1-3-1 Part (i) from the Model Statement table and

write it on Page 3, incorporating it into the part of line item 1-3-1 previously selected

- b. If no, continue to step 62

62. Is an understanding of signal flow within this subsystem required?

- a. If yes, select line item 1-3-1 Part (ii) from the Model Statement table and write it on Page 3, incorporating it into the parts of line item 1-3-1 previously selected
- b. If no, continue to step 63

63. Does this subsystem operate in a specific sequence?

- a. If yes, select line item 1-3-1 Part (iii) from the Model Statement table and write it on Page 3, incorporating it into any other parts of line item 1-3-1 previously selected
- b. If no, continue to step 64

64. Does this subsystem have any indications that it is operating in various methods/modes, etc?

- a. If yes, select line item 1-3-1 Part (iv) from the Model Statement table and write it on Page 3, incorporating it into any other parts of line item 1-3-1 previously selected. Immediately below the last part of line item 1-3-1 listed, list out the equipments which make up the subsystem. These will be subitems to line item 1-3-1. They are identified by sequential small letters (a, b, c, etc.).
- b. If no, immediately below the last part of line item 1-3-1 listed, list out the equipments which make up the subsystem. These will be subitems to line item 1-3-1. They are identified by sequential small letters (a, b, c, etc.).

65. Does this subsystem have functional loops within it allowing for proper operation?

- a. If yes, select line item 1-3-2 from the Model Statement table and write it on Page 3 below the last line subitem listed. Review line item 1-3-2 from the Model Statement table and select the appropriate terms. Incorporate them into a single statement with line item 1-3-2 on Page 3.
- b. If no, continue to step 66

66. Does this subsystem have any controls?
- a. If yes, select line item 1-3-3 Part (i) from the Model Statement table and write it on page 3 below the last line item/subitem listed
  - b. If no, continue to step 67
67. Does this subsystem have any indicators?
- a. If yes, select line item 1-3-3 Part (ii) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other part of line item 1-3-3 previously listed.
  - b. If no, continue to step 68
68. Do the displays, controls, or indicators have any specific positions?
- a. If yes, select line item 1-3-3 Part (iii) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 69
69. Do the controls or indicators of this subsystem have specific conditions?
- a. If yes, select line item 1-3-3 Part (iv) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 70
70. Do the displays, controls, or indicators have specific colors?
- a. If yes, select line item 1-3-3 Part (v) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 71
71. Is this subsystem a computer or other type of device that is programmable?
- a. If yes, select line item 1-3-4 from the Model Statement table and write it on Page 3 below the last line item/subitem listed
  - b. If no, go to step 73 a(2)

72. Do the programs associated with this subsystem have specific numbers?
- If yes, select line item 1-3-4 Part (i) from the Model Statement table and write it on Page 3, incorporating it into the part of line item 1-3-4 previously selected
  - If no, continue to step 73
73. Does the use of any associated programs impose any type of constraints on operational or maintenance procedures?
- If yes:
    - Select line item 1-3-4 Part (ii) from the Model Statement table and write it on Page 3, incorporating it into the parts of line item 1-3-4 previously selected
    - Number the line items on Page 3 sequentially, beginning with number 1-3-1. On a blank piece of paper write the following heading "1-4. Interface Description." On page 4 below the heading write line item 1-4-1 Part (i) from the Model Statement table.
  - If no, number the line items on Page 3 sequentially, beginning with number 1-3-1. On a blank piece of paper write the following heading "1-4. Interface Description." On page 4 below the heading write line item 1-4-1 Part (i) from the Model Statement table.
74. Is an understanding of the physical appearance of the physical interface required?
- If yes, select line item 1-4-1 Part (ii) from the Model Statement table and write it on Page 4, incorporating it into the part of line item 1-4-1 previously selected
  - If no, continue to step 75
75. Does the physical interface of this subsystem have reference designators?
- If yes, select line item 1-4-1 Part (iii) from the Model Statement table and write it on Page 4, incorporating it into the parts of line item 1-4-1 previously selected
  - If no, continue to step 76

76. Does the physical interface of this subsystem have specific locations?
- If yes, select line item 1-4-1 Part (iv) from the Model Statement table and write it on Page 4, incorporating it into the parts of line item 1-4-1 previously selected. Immediately below the last part of line item 1-4-1 listed, list out the physical interface and related external equipment which make up the equipment, subsystem, or system. These will be subitems to line item 1-4-1. They are identified by sequential small letters (a, b, c, etc.). Select line item 1-4-2 from the Model Statement table and write it on Page 4 below the last line item/subitem selected.
  - If no, immediately below the last part of line item 1-4-1 listed, list out the physical interface and related external equipment which make up the equipment, subsystem, or system. These will be subitems to line item 1-4-1. They are identified by sequential small letters (a, b, c, etc.). Select line item 1-4-2 from the Model Statement table and write it on Page 4 below the last line item/subitem selected.
77. Are there any electrical interfaces between this subsystem and any other equipment, subsystem, or system?
- If yes, select subitem 1-4-2a from the Model Statement table and write it on Page 4 below line item 1-4-2
  - If no, continue to step 78
78. Are there any electronic interfaces between this subsystem and any other equipment, subsystem, or system?
- If yes, select subitem 1-4-2b from the Model Statement table and write it on Page 4 below line item 1-4-2 or subitem 1-4-2a if it was previously selected
  - If no, continue to step 79
79. Are there any pneumatic interfaces between this subsystem and any other equipment, subsystem, or system?
- If yes, select subitem 1-4-2c from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected.
  - If no, continue to step 80
80. Are there any hydraulic interfaces between this subsystem and any other equipment, subsystem, or system?

- a. If yes, select subitem 1-4-2d from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected.
  - b. If no, continue to step 81
81. Are there any mechanical interfaces between this subsystem and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2e from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected. Include sublevel (1) or (2) of this subitem as appropriate.
  - b. If no, continue to step 82
82. Place all the pages of this draft Personnel Performance Profile (PPP) in the following order:
- (1) Page 1
  - (2) Page 2
  - (3) Page 3
  - (4) Page 4
  - (5) Page B
  - (6) Page A
83. Transfer the information from the hand-written pages to the final PPP Table form. Review the Personnel Performance Profile Table for completeness and accuracy.

Refer to Figure 3 as an example of a completed Subsystem PPP Table



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**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
PPP TABLE DEVELOPMENT

PERSONNEL PERFORMANCE PROFILE  
FOR  
MOBILE CONSTRUCTION BATTALION VEHICLES - DEPLOYED

TABLE S1038  
GENERAL UTILITY VEHICLES  
15 MARCH 1986

SUBSYSTEM MODIFICATION RECORD

None

NEW DESIGN - DRAWING NUMBER

None

S1038-1/S1038-2

**FIGURE 3. Example Subsystem PPP Table Cover Page**

<b>TABLE S1038. General Utility Vehicles (Subsystem).</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1.	<u><b>SUBSYSTEM KNOWLEDGE</b></u>
1-1.	<b>GENERAL</b>
1-1-1.	State the function of the General Utility Vehicles.
1-1-2.	State that the General Utility Vehicles subsystem consists of the following Commercial Utility Cargo Vehicle (CUCV) equipment including the function of each. <ul style="list-style-type: none"> <li>a. CUCV (TYPE A), Utility</li> <li>b. CUCV (TYPE B), Cargo</li> <li>c. CUCV (TYPE C), Ambulance</li> <li>d. CUCV (5-TON), Dump</li> <li>e. CUCV (2.5 TON), Cargo</li> <li>f. CUCV (15 TON), Dump</li> </ul>
1-1-3.	Define the abbreviations, terms, and symbols used with the General Utility Vehicles.
1-1-4.	State the operational characteristics and capabilities of the General Utility Vehicles in terms of the parameters and limitations as listed in the operating specifications pages of the applicable technical documentation.
1-1-5.	Describe the differences between the various models of the General Utility Vehicles.
1-2.	<b>PHYSICAL DESCRIPTION</b>
1-2-1.	Describe all equipments or major functional areas of the General Utility Vehicles. Include the name, nomenclature, physical appearance, reference designation, location, and construction features. <ul style="list-style-type: none"> <li>a. CUCV (TYPE A), Utility</li> <li>b. CUCV (TYPE B), Cargo</li> <li>c. CUCV (TYPE C), Ambulance</li> <li>d. CUCV (5-TON), Dump</li> <li>e. CUCV (2.5 TON), Cargo</li> <li>f. CUCV (15 TON), Dump</li> </ul>
1-2-2.	Describe controls, indicators, and displays directly associated with the General Utility Vehicles.

**FIGURE 3. Example Subsystem PPP Table**

<b>TABLE S1038. General Utility Vehicles (Subsystem).</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-2-2. (Cont.)	<p>Include name, reference, designation, positions, locations, and colors of each.</p> <ul style="list-style-type: none"> <li>a. CUCV (TYPE A), Utility</li> <li>b. CUCV (TYPE B), Cargo</li> <li>c. CUCV (TYPE C), Ambulance</li> <li>d. CUCV (5-TON), Dump</li> <li>e. CUCV (2.5 TON), Cargo</li> <li>f. CUCV (15 TON), Dump</li> </ul>
1-3.	<b>FUNCTIONAL DESCRIPTION</b>
1-3-1.	<p>Describe how the General Utility Vehicles work (functional operation). Include, when applicable, the methods of controls, signal flow, and indications.</p> <ul style="list-style-type: none"> <li>a. CUCV (TYPE A), Utility</li> <li>b. CUCV (TYPE B), Cargo</li> <li>c. CUCV (TYPE C), Ambulance</li> <li>d. CUCV (5-TON), Dump</li> <li>e. CUCV (2.5 TON), Cargo</li> <li>f. CUCV (15 TON), Dump</li> </ul>
1-3-2.	<p>Describe the functions of each control, indicator, and display of the General Utility Vehicles. Include, when applicable, electrical signal flow, fluid flow, steam flow, mechanical transfer, pneumatic control, position, color, or indication of each.</p> <ul style="list-style-type: none"> <li>a. CUCV (TYPE A), Utility</li> <li>b. CUCV (TYPE B), Cargo</li> <li>c. CUCV (TYPE C), Ambulance</li> <li>d. CUCV (5-TON), Dump</li> <li>e. CUCV (2.5 TON), Cargo</li> <li>f. CUCV (15 TON), Dump</li> </ul>
1-4.	<b>INTERFACE DESCRIPTION</b> <p>There are no interfaces between the General Utility Vehicles and any other subsystem.</p>
1-5.	<b>OPERATIONAL DESCRIPTION</b>
1-5-1.	<p>Describe the authority and regulations pertaining to the operation of the General Utility Vehicles.</p>

**FIGURE 3. Example Subsystem PPP Table - Continued**

<b>TABLE S1038. General Utility Vehicles (Subsystem).</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-5-2.	Describe operational tasks for General Utility Vehicles. <ul style="list-style-type: none"> <li>a. Pre-operational procedures</li> <li>b. Operational procedures</li> <li>c. Post-operational procedures</li> </ul>
1-5-3.	Describe indications which should or may occur during operation of the General Utility Vehicles. Include alarms, indicators, displays, and readouts.
1-5-4.	Describe casualty/degraded/abnormal/not full mission capable mode(s) of operation for the General Utility Vehicles.
1-5-5.	Describe data logging requirements for the General Utility Vehicles. Include logging method, types of data logged, and disposition.
1-5-6.	Describe personnel and equipment safety precautions which are to be observed during operation of the General Utility Vehicles.
1-6.	<b>MAINTENANCE DESCRIPTION</b>
1-6-1.	Define the maintenance policy for the General Utility Vehicles. <ul style="list-style-type: none"> <li>a. Preventive maintenance - the requirement for periodic performance of tasks to minimize system malfunctions by doing the following: <ul style="list-style-type: none"> <li>(1) cleaning</li> <li>(2) inspection</li> <li>(3) lubrication</li> <li>(4) painting</li> <li>(5) degradation/deterioration checks</li> <li>(6) performance checks</li> <li>(7) pre-maintenance procedures</li> </ul> </li> <li>b. Corrective maintenance - checks and procedures used to locate and correct malfunctions as determined by the following guides: <ul style="list-style-type: none"> <li>(1) Authorized repair responsibility to correct malfunctions to the authorized maintenance level.</li> </ul> </li> </ul>

**FIGURE 3. Example Subsystem PPP Table - Continued**

<b>TABLE S1038. General Utility Vehicles (Subsystem).</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-6-1. (Cont.)	<p>(2) Fault isolation - location of faults to the level of available spares, and to the authorized repair level including system operational checks and tests, as well as fault isolation tests and procedures.</p> <p>(3) Analytical procedures - isolation of faults using authorized techniques not contained in prescribed maintenance documentation.</p> <p>(4) Post-maintenance procedures - procedures performed after repair.</p>
1-6-2.	Describe the use of special tools and test equipment required for maintenance of the General Utility Vehicles as prescribed in applicable documentation.
1-6-3.	Describe preventive maintenance procedures for the General Utility Vehicles. Include recognition and interpretation of indications, records, and reports.
1-6-4.	Describe alignment, adjustment, and calibration procedures for the General Utility Vehicles.
1-6-5.	Describe the operational tests used for maintenance of the General Utility Vehicles. Include test name, use, and the procedures.
1-6-6.	Describe the recognition and interpretation of all malfunction indications for the General Utility Vehicles.
1-6-7.	Describe the systematic fault isolation procedures contained in the prescribed maintenance documentation for the General Utility Vehicles.
1-6-8.	Describe authorized techniques to isolate faults on the General Utility Vehicles, which cannot be located using procedures contained in the prescribed documentation.
1-6-9.	Describe the post-repair procedures for the General Utility Vehicles.
1-6-10.	Describe personnel and equipment safety precautions which are to be observed while performing maintenance on the General Utility Vehicles.

**FIGURE 3. Example Subsystem PPP Table - Continued**

<b>TABLE S1038. General Utility Vehicles (Subsystem).</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-7.	<b>DOCUMENTATION</b>
1-7-1.	Describe the organization, content, and use of all technical documentation provided for use with the General Utility Vehicles.
2.	<b><u>SUBSYSTEM SKILLS</u></b>
2-1.	<b>OPERATION</b>
2-1-1.	Perform tasks for operation of the General Utility Vehicles. <ul style="list-style-type: none"> <li>a. Pre-operational procedures</li> <li>b. Operational procedures</li> <li>c. Post-operational procedures</li> </ul>
2-1-2.	Perform tasks and casualty/degraded/abnormal/not full mission capable modes of operations of the General Utility Vehicles.
2-1-3.	Perform data logging requirements for the General Utility Vehicles.
2-1-4.	Adhere to personnel and equipment safety precautions during operation of the General Utility Vehicles.
2-2.	<b>MAINTENANCE</b>
2-2-1.	Use special tools and special test equipment required for maintenance of the General Utility Vehicles as prescribed in applicable document.
2-2-2.	Perform preventive maintenance procedures, including quality assurance procedures on the General Utility Vehicles, as scheduled by the Planned Maintenance System (PMS).
2-2-3.	Perform alignment, adjustment, and calibration procedures on the General Utility Vehicles.
2-2-4.	Perform operational tests used for maintenance of the General Utility Vehicles.
2-2-5.	Recognize and interpret all malfunction indications for the General Utility Vehicles.

**FIGURE 3. Example Subsystem PPP Table - Continued**

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**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
**PPP TABLE DEVELOPMENT**

TABLE S1038. General Utility Vehicles (Subsystem).	
ITEM No.	KNOWLEDGE/SKILL
2-2-6.	Perform systematic fault isolation on the General Utility Vehicles, using the procedures contained in prescribed maintenance documentation.
2-2-7.	Use authorized methods to isolate faults on the General Utility Vehicles, which cannot be located using the procedures contained in prescribed maintenance documentation.
2-2-8.	Perform post-repair procedures, including quality assurance procedures, on the General Utility Vehicles.
2-2-9.	Adhere to personnel and equipment safety precautions when performing maintenance on the General Utility Vehicles.

**FIGURE 3. Example Subsystem PPP Table - Continued**

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NAVEDTRA 131, VOLUME I SUPPLEMENT  
PPP TABLE DEVELOPMENT

**CURRICULUM DEVELOPER AID**  
**FOR**  
**SYSTEM**  
**PERSONNEL PERFORMANCE PROFILE**  
**TABLES**



Obtain the following resources:

- Technical documentation
- SMEs
- Job Task Inventory
- ESS PPP Model Statements Table 2

1. Start the development of a System PPP by obtaining two blank pieces of paper, then:
  - a. On one blank piece of paper put the heading "Page A." Immediately below this heading write "2. System Skills." Below the heading "2. System Skills" write "2-1 Operation."
  - b. On the other blank piece of paper put the heading "Page B." Immediately below this heading write "1. System Knowledge." Below the heading "1. System Knowledge" write "1-5 Operational Description."
2. Is there any technical documentation required for use with the system?
  - a. If yes, at the bottom of page B write "1-7. Documentation" and select line item 1-7-1 from the Model Statement table and write it on Page B below the heading "1-7. Documentation."
  - b. If no, continue to step 3
3. Are there any actions a human must take to make this system perform the purpose it was designed for?
  - a. If yes, select line item 2-1-1 from the Model Statement table and write it below the heading "2-1. Operation" on Page A. Select line item 1-5-1 from the Model Statement table and write it below the heading "1-5. Operational Description" on Page B. Select line item 1-5-2 from the Model Statement table and write it on Page B below the last line item listed.
  - b. If no, write "No operation required below" "2-1. Operation" on Page A and write "No operation required" on Page B below the heading "1-5. Operational Description," then go to step 28 b(2).

4. Are there any actions that must be performed on this system prior to operating it?
  - a. If yes, select subitem 2-1-1a from the Model Statement table and write it on Page A below line item 2-1-1. Select subitem 1-5-2a from the Model Statement table and write it on Page B below line item 1-5-2.
  - b. If no, go to step 7
5. Are there any routine pre-operational procedures which must be performed prior to the operational procedures?
  - a. If yes, select subitem 2-1-1a (1) from the Model Statement table and write it on Page A below subitem 2-1-1a. Select subitem 1-5-2a (1) from the Model Statement table and write it on Page B below subitem 1-5-2a.
  - b. If no, continue to step 6
6. Does this system have to be installed into a specific location prior to operation?
  - a. If yes, select subitem 2-1-1a (2) from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2a (2) from the Model Statement table and write it on Page B below the last item/subitem listed.
  - b. If no, continue to step 7
7. Does this system have to be assembled prior to operation?
  - a. If yes:
    - (1) Select subitem 2-1-1a (3) from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2a (3) from the Model Statement table and write it on Page B below the last item/subitem listed.
    - (2) Select subitem 2-1-1b from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2b from the Model Statement table and write it on Page B below the last item/subitem listed.

- b. If no, select subitem 2-1-1b from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2b from the Model Statement table and write it on Page B below the last item/subitem listed.
8. Are there any procedures that must be performed after the system has been operated?
- a. If yes, select subitem 2-1-1c from the Model Statement table and write it on Page A below the last item/subitem listed. Select subitem 1-5-2c from the Model Statement table and write it on Page B below the last item/subitem listed.
  - b. If no, continue to step 9
9. Are there any critical operator actions required to keep the system operating properly?
- a. If yes, select line item 2-1-2 from the Model Statement table and write it on Page A below the last item/subitem. Select line item 1-5-3 from the Model Statement table and write it on Page B below the last item/subitem.
  - b. If no, go to step 15
10. Does this system have any alarms?
- a. If yes, select line item 1-5-3 part (i) from the Model Statement table and incorporate it into line item 1-5-3 on Page B
  - b. If no, continue to step 11
11. Does this system have any indicators?
- a. If yes, select line item 1-5-3 part (ii) from the Model Statement table and incorporate it into line item 1-5-3 on Page B
  - b. If no, continue to step 12
12. Does this system have any displays?
- a. If yes, select line item 1-5-3 (iii) from the Model Statement table and incorporate it into line item 1-5-3 on Page B.

- b. If no, continue to step 13
- 13. Does this system have any readouts?
  - a. If yes, select line item 1-5-3 part (iv) from the Model Statement table and incorporate it into line item 1-5-3 on Page B
  - b. If no, continue to step 14
- 14. Does this system have any printouts or typeouts?
  - a. If yes, select line item 1-5-3 part (v) from the Model Statement table and incorporate it into line item 1-5-3 on Page B
  - b. If no, continue to step 15
- 15. Does this system have specific casualty modes of operation?
  - a. If yes, select line item 2-1-3 part (i) from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-4 part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 16
- 16. Does this system have a specifically designated degraded mode of operation?
  - a. If yes, select line item 2-1-3 part (ii) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (ii) from the Model Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.
  - b. If no, continue to step 17
- 17. Does this system have a specifically designated abnormal mode of operation?
  - a. If yes, select line item 2-1-3 part (iii) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (iii) from the Model

Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.

- b. If no, continue to step 18
18. Does this system have a designated not full mission capable mode of operation?
- a. If yes, select line item 2-1-3 part (iv) from the Model Statement table and write it on Page A. Incorporate it with any other part of line item 2-1-3 previously selected. Select line item 1-5-4 part (iv) from the Model Statement table and write it on Page B. Incorporate it with any other part of line item 1-5-4 previously selected.
  - b. If no, continue to step 19
19. Is this system a type of computer which produces tapes, disks, or diskettes?
- a. If yes, select line item 2-1-4 from the Model Statement table and write it on Page A below the last line item/subitem listed
  - b. If no, go to step 24
20. Must these tapes, disks, or diskettes be interpreted to support system operation?
- a. If yes, select line item 1-5-5 part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed
  - b. If no, continue to step 21
21. Must the function of these tapes, disks, or diskettes be understood to support system operation?
- a. If yes, select line item 1-5-5 part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.
  - b. If no, continue to step 22

22. Must the use of these tapes, disks, or diskettes be understood to support system operation?
  - a. If yes, select line item 1-5-5 Part (iii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.
  - b. If no, continue to step 23
23. Must the format of these tapes, disks, or diskettes be understood to support system operation?
  - a. If yes, select line item 1-5-5 Part (iv) from the Model Statement table and write it on Page B below the last item/subitem listed. Incorporate it with any other part of line item 1-5-5 previously selected.
  - b. If no, continue to step 24
24. Are there any data logging requirements involved with the operation of this system?
  - a. If yes, select line item 2-1-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-6 from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, go to step 28
25. Are there specific methods that must be followed to meet data logging requirements?
  - a. If yes, select line item 1-5-6 Part (i) from the Model Statement table and incorporate it on Page B with the previously selected part of line item 1-5-6
  - b. If no, continue to step 26
26. Are there specific types of data to be logged to support data logging requirements?
  - a. If yes, select line item 1-5-6 Part (ii) from the Model Statement table and incorporate it on Page B with the previously selected parts of line item 1-5-6

- b. If no, continue to step 27
27. Is a knowledge of the disposition of logged data required to support data logging requirements?
- a. If yes, select line item 1-5-6 Part (iii) from the Model Statement table and incorporate it on Page B with the previously selected parts of line item 1-5-6
  - b. If no, continue to step 28
28. Are there acceptance tests which must be performed when this system is operated?
- a. If yes, select line item 2-1-6 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-5-7 from the Model Statement table and write it on Page B below the last line item/subitem listed. Select line items 2-1-7 and 2-1-8 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-5-8 and 1-5-9 from the Model Statement table and write it on Page B below the last line item/subitem listed. Below the last line item/subitem listed on Page A write "2-2. Maintenance." Below the last line item/subitem listed on Page B write "1-6. Maintenance Description." Below the maintenance description heading on Page B write out line item 1-6-1 from the Model Statement table.
  - b. If no:
    - (1) Select line items 2-1-7 and 2-1-8 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-5-8 and 1-5-9 from the Model Statement table and write it on Page B below the last line item/subitem listed.
    - (2) Below the last line item/subitem listed on Page A write "2-2. Maintenance." Below the last line item/subitem listed on Page B write "1-6. Maintenance Description." Below the maintenance description heading on Page B write out line item 1-6-1 from the Model Statement table.
29. Is any special tool unique to this system used during either preventive or corrective maintenance?

- a. If yes, select line item 2-2-1 Part (i) from the Model Statement table and write it on Page A below the Maintenance heading. Select line item 1-6-2 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 30
30. Is any test equipment unique to this system used during preventive or corrective maintenance?
- a. If yes, select line item 2-2-1 Part (ii) from the Model Statement table and write it on Page A below the Maintenance heading. Incorporate it with any other parts of line item 2-2-1 previously selected. Select line item 1-6-2 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any other part of line item 1-6-2 previously selected.
  - b. If no, continue to step 31
31. Does this system have required preventive maintenance procedures?
- a. If yes, select line 2-2-2 from the Model Statement table and write it on Page A below the last line item/subitem listed
- Based on the Preventive Maintenance System in use for this system, select line item 2-2-2 Part (i), 2-2-2 Part (ii) or 2-2-2 Part (iii) and incorporate it into the previously selected part of line item 2-2-2 on page A. Select line item 1-6-3 from the Model Statement table and write it on Page B below the last line item/subitem listed.
- b. If no, go to step 34
32. Are there any records that must be kept for preventive maintenance?
- a. If yes, select line item 1-6-3 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-3 previously selected.
  - b. If no, continue to step 33
33. Are there any reports which must be made for preventive maintenance?



- a. If yes, select line item 1-6-3 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-3 previously selected.
  - b. If no, continue to step 34
34. Are there any alignment procedures for this system?
- a. If yes, select line item, 2-2-3 Part (i) from the Model Statement table and write it on Page A below the last line item/subitem selected. Select line item 1-6-4 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 35
35. Are there any adjustment procedures for this system?
- a. If yes, select line item 2-2-3 Part (ii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-3 previously selected. Select line item 1-6-4 Part (ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-4 previously selected.
  - b. If no, continue to step 36
36. Are there any calibration procedures for this system?
- a. If yes, select line item 2-2-3 Part (iii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-3 previously selected. Select line item 1-6-4 Part (iii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of the line item 1-6-4 previously selected.
  - b. If no, continue to step 37
37. Are there any operational tests performed during preventive or corrective maintenance for this system?

- a. If yes, select line item 2-2-4 Part (i) from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-5 Part (i) from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, continue to step 38
38. Are there any diagnostic programs used during preventive or corrective maintenance for this system?
- a. If yes, select line item 2-2-4 Part (ii) from the Model Statement table and write it on Page A below the last line item/subitem listed. Incorporate it with any parts of line item 2-2-4 previously selected. Select line item 1-6-5 Part(ii) from the Model Statement table and write it on Page B below the last line item/subitem listed. Incorporate it with any parts of line item 1-6-5 previously selected.
  - b. If no, continue to step 39
39. Were either Part (i), or Part (ii) of line item 1-6-5 selected?
- a. If yes, select line item 1-6-5 Part (iii) from the Model Statement table and incorporate it in the parts of line item 1-6-5 previously listed on Page B. Select line item 2-2-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-6 from the Model Statement table and write it on Page B below the last line item/subitem listed.
  - b. If no, select line item 2-2-5 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-6 from the Model Statement table and write it on Page B below the last line item/subitem listed.
40. Are there fault isolation procedures contained in the technical documentation for this system?
- a. If yes, select line item 2-2-6 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-7 from the Model Statement table and write it on Page B below the last line item/subitem listed.

- b. If no, continue to step 41
41. Does the technical documentation for this system provide documented fault isolation procedures that cover all possible faults?
- a. If yes, continue to step 42
  - b. If no, select line item 2-2-7 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-8 from the Model Statement table and write it on Page B below the last line item/subitem listed.
42. Are there any procedures which must be performed after the repair of this system?
- a. If yes, select line item 2-2-9 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line item 1-6-10 from the Model Statement table and write it on Page B below the last line item/subitem listed. Select line items 2-2-10 and 2-2-11 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-6-11 and 1-6-12 from the Model Statement table and write it on Page B below the last line item/subitem listed. Number all line items on Page A sequentially, starting with number 2-1-1 for operational skills and 2-2-1 for maintenance skills. Number all line items on Page B sequentially, starting with numbers 1-5-1 for line items in the operational description and 1-6-1 for line items in the maintenance description.
  - b. If no, select line items 2-2-10 and 2-2-11 from the Model Statement table and write it on Page A below the last line item/subitem listed. Select line items 1-6-11 and 1-6-12 from the Model Statement table and write it on Page B below the last line item/subitem listed. Number all line items on Page A sequentially, starting with number 2-1-1 for operational skills and 2-2-1 for maintenance skills. Number all line items on Page B sequentially, starting with numbers 1-5-1 for line items in the operational description and 1-6-1 for line items in the maintenance description.
43. On a blank piece of paper write the heading "1. System Knowledge." On the same paper write "1-1. General" below the heading. This paper will be referred to as Page 1. On page 1, below the sub-heading, write line item 1-1-1 from the Model Statement table. Number this line item 1-1-1. On page

- 1, below line item 1-1-1, write line item 1-1-2 from the Model Statement table. Number this line item 1-1-2. Write out the necessary subitems as required. These are identified sequentially by small letters (a, b, c, etc).
44. Are there abbreviations unique to this system?
- a. If yes, select line item 1-1-3 Part (i) from the Model Statement table and write it on Page 1 below the last line item/subitem listed
  - b. If no, continue to step 45
45. Are there terms unique to this system?
- a. If yes, select line item 1-1-3 Part (ii) from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Incorporate it into any other parts of line item 1-1-3 previously selected.
  - b. If no, continue to step 46
46. Are there symbols unique to this system?
- a. If yes, select line item 1-1-3 Part (iii) from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Incorporate it into any other parts of line item 1-1-3 previously selected. Select line item 1-1-4 from the Model Statement table and write it on Page 1 below the last line item/subitem listed.
  - b. If no, select line item 1-1-4 from the Model Statement table and write it on Page 1 below the last line item/subitem listed
47. Does this system have different models?
- a. If yes, select line item 1-1-5 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Select line item 1-1-6 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Ensure all line items listed on Page 1 are numbered sequentially starting with line item 1-1-1. On a blank piece of paper write the following heading: "1-2. Physical Description." This paper will be referred to as Page 2. Select line item 1-2-1 Part (i) from the Model Statement table and write it on Page 2 below the heading.

- b. If no, select line item 1-1-6 from the Model Statement table and write it on Page 1 below the last line item/subitem listed. Ensure all line items listed on Page 1 are numbered sequentially starting with line item 1-1-1. On a blank piece of paper write the following heading: "1-2. Physical Description." This paper will be referred to as Page 2. Select line item 1-2-1 Part (i) from the Model Statement table and write it on Page 2 below the heading.
48. Do the subsystems of this system have specific nomenclature?
- a. If yes, below line item 1-2-1 on Page 2 list out all the subsystems that make up the system. These will make up the subitems to line item 1-2-1. They are identified sequentially by small letters (a, b, c, etc.). Select line item 1-2-1 Part (ii) from the Model Statement table and write it on Page 2 incorporating it into any other part of line item 1-2-1 previously selected.
  - b. If no, continue to step 49
49. Is an understanding of the physical appearance of the major and/or associated components, equipments, or subsystems required?
- a. If yes, select line item 1-2-1 Part (iii) from the Model Statement table and write it on Page 2, incorporating it into any other part of line item 1-2-1 previously selected
  - b. If no, continue to step 50
50. Do the major and/or associated components, equipments, or subsystems have reference designators?
- a. If yes, select line item 1-2-1 Part (iv) from the Model Statement table and write it on Page 2, incorporating it into any other part of line item 1-2-1 previously selected
  - b. If no, continue to step 51
51. Is an understanding of the location of the major and/or associated components, equipments, or subsystems required?
- a. If yes, select line item 1-2-1 Part (v) from the Model Statement table and write it on Page 2, incorporating it into any other part of line item 1-2-1 previously selected

- b. If no, continue to step 52
- 52. Is an understanding of the construction features of the major and/or associated components, equipments, or subsystems required?
  - a. If yes, select line item 1-2-1 Part (vi) from the Model Statement table and write it on Page 2, incorporating it into any other part of the line item 1-2-1 previously selected
  - b. If no, continue to step 53
- 53. Does this system have any displays?
  - a. If yes, select line item 1-2-2 Part (i) from the Model Statement table and write it on Page 2 below the last line item/subitem listed
  - b. If no, continue to step 54
- 54. Does this system have any controls?
  - a. If yes, select line item 1-2-2 Part (ii) from the Model Statement table and write it on page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.
  - b. If no, continue to step 55
- 55. Does this system have any indicators?
  - a. If yes, select line item 1-2-2 Part (iii) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-2-2 previously selected.
  - b. If no, continue to step 56
- 56. Do the displays, controls, or indicators have reference designators?
  - a. If yes, select line item 1-2-2 Part (iv) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line 1-2-2 previously selected.
  - b. If no, continue to step 57
- 57. Do the displays, controls, or indicators have specific positions?

- a. If yes, select line item 1-2-2 Part (v) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.
  - b. If no, continue to step 58
58. Do the displays, controls, or indicators have specific colors?
- a. If yes, select line item 1-2-2 Part (vi) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other part of line item 1-2-2 previously selected.
  - b. If no, continue to step 59
59. Do the displays, controls, or indicators have specific locations?
- a. If yes, select line item 1-2-2 Part (vii) from the Model Statement table and write it on Page 2 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-2-2 previously selected. Ensure the two line items on Page 2 are numbered 1-2-1 and 1-2-2. On a blank piece of paper write the following heading: "1-3. Functional Description." This paper will be referred to as Page 3.
  - b. If no, ensure the two line items on Page 2 are numbered 1-2-1 and 1-2-2. On a blank piece of paper write the following heading: "1-3. Functional Description." This paper will be referred to as Page 3.
60. Is this system a computer or complex electro-mechanical device with various control circuits?
- a. If yes, select line item 1-3-1 (Part B) from the Model Statement table. Write the statement on Page 3 immediately below the heading and label it 1-3-1. Select the appropriate terms from the statement and incorporate them into a single statement on Page 3 with the selected Model Statement. Then go to step 65.
  - b. If no, select line item 1-3-1 (Part A) from the Model Statement table. Write the statement on Page 3 immediately below the heading and label it 1-3-1.
61. Does this system have specific methods of control?

- a. If yes, select line item 1-3-1 Part (i) from the Model Statement table and write it on Page 3, incorporating it into the part of line item 1-3-1 previously selected
  - b. If no, continue to step 62
62. Is an understanding of signal flow within this system required?
- a. If yes, select line item 1-3-1 Part (ii) from the Model Statement table and write it on Page 3, incorporating it into the parts of line item 1-3-1 previously selected
  - b. If no, continue to step 63
63. Does this system operate in a specific sequence?
- a. If yes, select line item 1-3-1 Part (iii) from the Model Statement table and write it on Page 3, incorporating it into any other parts of line item 1-3-1 previously selected
  - b. If no, continue to step 64
64. Does this system have any indications that it is operating in various methods/modes, etc?
- a. If yes, select line item 1-3-1 Part (iv) from the Model Statement table and write it on Page 3, incorporating it into any other parts of line item 1-3-1 previously selected. Immediately below the last part of line item 1-3-1 listed, list out the subsystems which make up the system. These will be subitems to line item 1-3-1. They are identified by sequential small letters (a, b, c, etc.).
  - b. If no, immediately below the last part of line item 1-3-1 listed, list out the subsystems which make up the system. These will be subitems to line item 1-3-1. They are identified by sequential small letters (a, b, c, etc.).
65. Does this system have functional loops within it allowing for proper operation?
- a. If yes, select line item 1-3-2 from the Model Statement table and write it on Page 3 below the last line subitem listed. Review line item 1-3-2 from the Model Statement table and select the appropriate terms. Incorporate them into a single statement with line item 1-3-2 on Page 3.



- b. If no, continue to step 66
- 66. Does this system have any controls?
  - a. If yes, select line item 1-3-3 Part (i) from the Model Statement table and write it on page 3 below the last line item/subitem listed
  - b. If no, continue to step 67
- 67. Does this system have any indicators?
  - a. If yes, select line item 1-3-3 Part (ii) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other part of line item 1-3-3 previously listed.
  - b. If no, continue to step 68
- 68. Do the displays, controls, or indicators have any specific positions?
  - a. If yes, select line item 1-3-3 Part (iii) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 69
- 69. Do the controls or indicators of this system have specific conditions?
  - a. If yes, select line item 1-3-3 Part (iv) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 70
- 70. Do the displays, controls, or indicators have specific colors?
  - a. If yes, select line item 1-3-3 Part (v) from the Model Statement table and write it on Page 3 below the last line item/subitem listed. Incorporate it with any other parts of line item 1-3-3 previously selected.
  - b. If no, continue to step 71
- 71. Is this system a computer or other type of device that is programmable?

- a. If yes, select line item 1-3-4 from the Model Statement table and write it on Page 3 below the last line item/subitem listed
  - b. If no, go to step 73 a(2)
72. Do the programs associated with this system have specific numbers?
- a. If yes, select line item 1-3-4 Part (i) from the Model Statement table and write it on Page 3, incorporating it into the part of line item 1-3-4 previously selected
  - b. If no, continue to step 73
73. Does the use of any associated programs impose any type of constraints on operational or maintenance procedures?
- a. If yes:
    - (1) Select line item 1-3-4 Part (ii) from the Model Statement table and write it on Page 3, incorporating it into the parts of line item 1-3-4 previously selected
    - (2) Number the line items on Page 3 sequentially, beginning with number 1-3-1. On a blank piece of paper write the following heading "1-4. Interface Description." On page 4 below the heading write line item 1-4-1 Part (i) from the Model Statement table.
  - b. If no, number the line items on Page 3 sequentially, beginning with number 1-3-1. On a blank piece of paper write the following heading "1-4. Interface Description." On page 4 below the heading write line item 1-4-1 Part (i) from the Model Statement table.
74. Is an understanding of the physical appearance of the physical interface required?
- a. If yes, select line item 1-4-1 Part (ii) from the Model Statement table and write it on Page 4, incorporating it into the part of line item 1-4-1 previously selected
  - b. If no, continue to step 75
75. Does the physical interface of this system have reference designators?

- a. If yes, select line item 1-4-1 Part (iii) from the Model Statement table and write it on Page 4, incorporating it into the parts of line item 1-4-1 previously selected
  - b. If no, continue to step 76
76. Does the physical interface of this system have specific locations?
- a. If yes, select line item 1-4-1 Part (iv) from the Model Statement table and write it on Page 4, incorporating it into the parts of line item 1-4-1 previously selected. Immediately below the last part of line item 1-4-1 listed, list out the physical interface and related external equipment which make up the equipment, subsystem, or system. These will be subitems to line item 1-4-1. They are identified by sequential small letters (a, b, c, etc.). Select line item 1-4-2 from the Model Statement table and write it on Page 4 below the last line item/subitem selected.
  - b. If no, immediately below the last part of line item 1-4-1 listed, list out the physical interface and related external equipment which make up the equipment, subsystem, or system. These will be subitems to line item 1-4-1. They are identified by sequential small letters (a, b, c, etc.). Select line item 1-4-2 from the Model Statement table and write it on Page 4 below the last line item/subitem selected.
77. Are there any electrical interfaces between this system and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2a from the Model Statement table and write it on Page 4 below line item 1-4-2
  - b. If no, continue to step 78
78. Are there any electronic interfaces between this system and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2b from the Model Statement table and write it on Page 4 below line item 1-4-2 or subitem 1-4-2a if it was previously selected
  - b. If no, continue to step 79
79. Are there any pneumatic interfaces between this system and any other equipment, subsystem, or system?

- a. If yes, select subitem 1-4-2c from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected
  - b. If no, continue to step 80
80. Are there any hydraulic interfaces between this system and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2d from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected
  - b. If no, continue to step 81
81. Are there any mechanical interfaces between this system and any other equipment, subsystem, or system?
- a. If yes, select subitem 1-4-2e from the Model Statement table and write it on Page 4 below line item 1-4-2 or any subitem of line item 1-4-2 previously selected. Include sublevel (1) or (2) of this subitem as appropriate.
  - b. If no, continue to step 82
82. Place all the pages of this draft Personnel Performance Profile (PPP) in the following order:
- (1) Page 1
  - (2) Page 2
  - (3) Page 3
  - (4) Page 4
  - (5) Page B
  - (6) Page A
83. Transfer the information from the hand-written pages to the final PPP Table forms. Review the Personnel Performance Profile Table for completeness and accuracy.

Refer to Figure 4 as an example of a completed System PPP Table

PERSONNEL PERFORMANCE PROFILE
FOR
MOBILE CONSTRUCTION BATTALION VEHICLES - DEPLOYED
TABLE S1037
MOBILE CONSTRUCTION BATTALION VEHICLES - DEPLOYED
1 JANUARY 1986
SYSTEM MODIFICATION RECORD
None
NEW DESIGN - DRAWING NUMBER
None
S1037-1/S1037-2

FIGURE 4. Example System PPP Table Cover Page

TABLE S1037. Mobile Construction Battalion Vehicles - Deployed (System).	
ITEM No.	KNOWLEDGE/SKILL
1.	<u>SYSTEM KNOWLEDGE</u>
1-1.	GENERAL
1-1-1.	State the purpose of the Mobile Construction Battalion Vehicles - Deployed system.
1-1-2.	State that the Mobile Construction Battalion Vehicles - Deployed system consists of the following subsystems including the function of each. <ul style="list-style-type: none"> <li>a. General Utility Vehicles</li> <li>b. Tanked Vehicles</li> <li>c. Earth Moving Vehicles</li> <li>d. Ancillary Vehicles</li> <li>e. Accessory Equipments</li> </ul>
1-1-3.	Define the abbreviations, terms, and symbols used with the Mobile Construction Battalion Vehicles - Deployed system.
1-1-4.	State the operational characteristics and capabilities of the Mobile Construction Battalion Vehicles - Deployed system in terms of the parameters and limitations as listed in the applicable technical documentation.
1-1-5.	Describe the differences between the various models of the Mobile Construction Battalion Vehicles - Deployed system.
1-2.	PHYSICAL DESCRIPTION
1-2-1.	Describe all subsystems or major equipments of the Mobile Construction Battalion Vehicles - Deployed system. Include the name, nomenclature, physical appearance, reference designation, location, and construction features of each. <ul style="list-style-type: none"> <li>a. General Utility Vehicles</li> <li>b. Tanked Vehicles</li> <li>c. Earth Moving Vehicles</li> <li>d. Ancillary Vehicles</li> <li>e. Accessory Equipments</li> </ul>
1-2-2.	Describe controls, indicators, and displays directly associated with the Mobile Construction Battalion Vehicles - Deployed system. Include name, reference designation, positions, locations, and colors of each.

**FIGURE 4. Example System PPP Table**

<b>TABLE S1037. Mobile Construction Battalion Vehicles - Deployed (System)</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-2-2. (Cont.)	<ul style="list-style-type: none"> <li>a. General Utility Vehicles</li> <li>b. Tanked Vehicles</li> <li>c. Earth Moving Vehicles</li> <li>d. Ancillary Vehicles</li> <li>e. Accessory Equipments</li> </ul>
1-3.	<b>FUNCTIONAL DESCRIPTION</b>
1-3-1.	<p>Describe how the Mobile Construction Battalion Vehicles - Deployed system works (functional operation). Include, when applicable, the methods of control, operational modes, inputs, and outputs of each.</p> <ul style="list-style-type: none"> <li>a. General Utility Vehicles</li> <li>b. Tanked Vehicles</li> <li>c. Earth Moving Vehicles</li> <li>d. Ancillary Vehicles</li> <li>e. Accessory Equipments</li> </ul>
1-3-2.	<p>Describe the functions of each control, indicator, and display of the Mobile Construction Battalion Vehicles - Deployed system. Include, when applicable, electrical signal flow, fluid flow, steam flow, mechanical transfer, pneumatic control, position, color, or indication of each.</p> <ul style="list-style-type: none"> <li>a. General Utility Vehicles</li> <li>b. Tanked Vehicles</li> <li>c. Earth Moving Vehicles</li> <li>d. Ancillary Vehicles</li> <li>e. Accessory Equipments</li> </ul>
1-4.	<b>INTERFACE DESCRIPTION</b> <p>There are no interfaces between the Mobile Construction Battalion Vehicles - Deployed system and any other system.</p>
1-5.	<b>OPERATIONAL DESCRIPTION</b>
1-5-1.	<p>Describe the authority and regulations pertaining to the operation of the Mobile Construction Battalion Vehicles - Deployed system.</p>

**FIGURE 4. Example System PPP Table - Continued**

TABLE S1037. Mobile Construction Battalion Vehicles - Deployed (System)	
ITEM No.	KNOWLEDGE/SKILL
1-5-2.	Describe operational tasks for Mobile Construction Battalion Vehicles - Deployed system. <ul style="list-style-type: none"> <li>a. Pre-operational procedures</li> <li>b. Operational procedures</li> <li>c. Post-operational procedures</li> </ul>
1-5-3.	Describe indications which should or may occur during operation of the Mobile Construction Battalion Vehicles - Deployed system. Include alarms, indicators, displays, and readouts.
1-5-4.	Describe casualty/degraded/abnormal/not full mission capable mode(s) of operation for the Mobile Construction Battalion Vehicles - Deployed system.
1-5-5.	Describe data logging requirements for the Mobile Construction Battalion Vehicles - Deployed system. Include logging method, types of data logged, and disposition.
1-5-6.	Describe the personnel and equipment safety precautions which are to be observed during operation of the Mobile Construction Battalion Vehicles - Deployed system.
1-6.	<b>MAINTENANCE DESCRIPTION</b>
1-6-1.	Define the maintenance policy for the Mobile Construction Battalion Vehicles - Deployed system. <ul style="list-style-type: none"> <li>a. Preventive maintenance - the requirement for periodic performance of tasks to minimize malfunctions by doing the following: <ul style="list-style-type: none"> <li>(1) cleaning</li> <li>(2) inspection</li> <li>(3) lubrication</li> <li>(4) painting</li> <li>(5) degradation/deterioration checks</li> <li>(6) performance checks</li> <li>(7) pre-maintenance procedures</li> </ul> </li> </ul>

**FIGURE 4. Example System PPP Table - Continued**



<b>TABLE S1037. Mobile Construction Battalion Vehicles - Deployed (System)</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-6-1. (Cont.)	<p>b. <b>Corrective Maintenance</b> - checks and procedures used to locate and correct malfunctions as determined by the following guides:</p> <p>(1) <b>Authorized repair responsibility</b> to correct malfunctions to the authorized maintenance level.</p> <p>(2) <b>Fault Isolation</b> - location of faults to the level of available spares, and to the authorized repair level including system operational checks and tests, as well as fault isolation tests and procedures.</p> <p>(3) <b>Analytical procedures</b> - isolation of faults using authorized techniques not contained in prescribed maintenance documentation.</p> <p>(4) <b>Post-maintenance procedures</b> - procedures performed after repair.</p>
1-6-2.	Describe the use of special tools and test equipment required for maintenance of the Mobile Construction Battalion Vehicles - Deployed system as prescribed in applicable documentation.
1-6-3.	Describe preventive maintenance procedures for the Mobile Construction Battalion Vehicles - Deployed system. Include recognition and interpretation of indications, records, and reports.
1-6-4.	Describe alignment, adjustment, and calibration procedures for the Mobile Construction Battalion Vehicles - Deployed system.
1-6-5.	Describe the operational tests used for maintenance of the Mobile Construction Battalion Vehicles - Deployed system. Include test name, use, and the procedures.
1-6-6.	Describe the recognition and interpretation of all malfunction indications for the Mobile Construction Battalion Vehicles - Deployed system.
1-6-7.	Describe the systematic fault isolation procedures contained in the prescribed maintenance documentation for the Mobile Construction Battalion Vehicles - Deployed system.

**FIGURE 4. Example System PPP Table - Continued**

<b>TABLE S1037. Mobile Construction Battalion Vehicles - Deployed (System)</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
1-6-8.	Describe authorized techniques to isolate faults on the Mobile Construction Battalion Vehicles - Deployed system, which cannot be located using procedures contained in the prescribed documentation.
1-6-9.	Describe the post-repair procedures for the Mobile Construction Battalion Vehicles - Deployed system.
1-6-10.	Describe personnel and equipment safety precautions which are to be observed while performing maintenance on the Mobile Construction Battalion Vehicles - Deployed system.
1-7.	<b>DOCUMENTATION</b>
1-7-1.	Describe the organization, content, and use of all technical documentation provided for use with the Mobile Construction Battalion Vehicles - Deployed system.
2.	<b><u>SYSTEM SKILLS</u></b>
2-1.	<b>OPERATION</b>
2-1-1.	Perform tasks for operation of the Mobile Construction Battalion Vehicles - Deployed system. <ul style="list-style-type: none"> <li>a. Pre-operational procedures</li> <li>b. Operational procedures</li> <li>c. Post-operational procedures</li> </ul>
2-1-2.	Recognize and interpret all indications occurring during performance of operating procedures and perform appropriate operator actions in proper sequences for the Mobile Construction Battalion Vehicles - Deployed system.
2-1-3.	Perform tasks for casualty/degraded/abnormal/not full mission capable mode(s) of operation of the Mobile Construction Battalion Vehicles - Deployed system.
2-1-4.	Perform data logging requirements for the Mobile Construction Battalion Vehicles - Deployed system.
2-1-5.	Adhere to personnel and equipment safety precautions during operation of the Mobile Construction Battalion Vehicles - Deployed system.

**FIGURE 4. Example System PPP Table - Continued**

<b>TABLE S1037. Mobile Construction Battalion Vehicles - Deployed (System)</b>	
<b>ITEM No.</b>	<b>KNOWLEDGE/SKILL</b>
2-2.	<b>MAINTENANCE</b>
2-2-1.	Use special tools and test equipment required for maintenance of the Mobile Construction Battalion Vehicles - Deployed system.
2-2-2.	Perform preventive maintenance procedures, including quality assurance procedures for the Mobile Construction Battalion Vehicles - Deployed system, as scheduled by the Planned Maintenance System (PMS).
2-2-3.	Perform alignment, adjustment, and calibration procedures on the Mobile Construction Battalion Vehicles - Deployed system.
2-2-4.	Perform operational tests used for maintenance of the Mobile Construction Battalion Vehicles - Deployed system.
2-2-5.	Recognize and interpret all malfunction indications for the Mobile Construction Battalion Vehicles - Deployed system.
2-2-6.	Perform systematic fault isolation on the Mobile Construction Battalion Vehicles - Deployed system, using procedures contained in prescribed maintenance documentation.
2-2-7.	Use authorized methods to isolate faults on the Mobile Construction Battalion Vehicles - Deployed system, which cannot be located using the procedures contained in the prescribed maintenance documentation.
2-2-8.	Perform post-repair procedures, including quality assurance procedures, on the Mobile Construction Battalion Vehicles - Deployed system.
2-2-9.	Adhere to personnel and equipment safety precautions when performing maintenance on the Mobile Construction Battalion Vehicles - Deployed system.

**FIGURE 4. Example System PPP Table - Continued**

FEBRUARY 1993

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
PPP TABLE DEVELOPMENT

**PPP TABLE CHECKLISTS**

FEBRUARY 1993

**NAVEDTRA 131, VOLUME I SUPPLEMENT**  
PPP TABLE DEVELOPMENT

## **INTRODUCTION**

The following tables provide a means of performing a content check on new or updated PPP Tables. ESS and Non-Hardware PPP Table Checklists are included.

Read each category provided in the checklist and compare the new or updated PPP Table that you are working on against the same

**TABLE 6. Checklist for Equipment PPPs**

<u>Category/Topic</u>		<u>Category/Topic</u>	
<b>1-1 GENERAL (Knowledge)</b>		<b>1-2 PHYSICAL DESCRIPTION (Knowledge)</b>	
Purpose	—	Equipment identification/nomenclature	—
Functional loops of which the equipment is a part	—	Name	—
Model differences	—	Physical appearance	—
Terminology and abbreviations	—	Reference symbols/designator	—
Operational characteristics (including but not limited to)	—	Location	—
Capabilities (limitations)	—	Equipment construction	—
Temperature operating ranges	—	Weight/size requirements	—
Tape storage	—	Space requirements	—
Logic levels	—	Major components	—
Coordinate systems	—	Associated components/module recognition and mounting	—
Word length	—	Maintenance provisions	—
Timing scheme	—	Chassis slides	—
Arithmetic considerations	—	Tilt mechanisms	—
General/special purpose	—	Access panels	—
Types of memory	—	Controls, displays, and indicators	—
Types of recording	—	Name	—
Frequency ranges	—	Location	—
Formatting	—	Reference designator	—
Accuracies	—	Positions and/or colors	—
Power requirements	—	Connectors/connections	—
Security	—	Signal input/output	—
		Power	—

**TABLE 6. Checklist for Equipment PPPs - Continued**

<u>Category/Topic</u>	<u>Category/Topic</u>
1-2 PHYSICAL DESCRIPTION (Knowledge) - Continued	Power supplies and distribution
Wire routing	Protective devices (fuses, interlocks, etc.)
Shock mounting	Modes of operation (all levels)
Hydraulic and pneumatic	Purpose
Ventilation and cooling	Conditions for use
1-3 FUNCTIONAL DESCRIPTION (Knowledge)	Programs
Logical functional breakdown (proceeding from the whole to the single functional stage; e.g., amplifier stage, digital logic block, synchros, motors etc.)	Function of each control and/or indicator in each position/condition/color
Functional levels (functional subdivisions at all levels)	Programming
Functional control	Types and uses
Mechanization (all levels)	Methods of solution
Functional loops (within the equipment)	General
Time and phase relationships	Glossary of terms and symbols
Significant incidents	Instruction complement (repertoire)
Time and/or mechanical sequences	Word structure
Signal flow	Instruction format
Mathematical analysis	Coding
Functional/physical relationships	Memory maps
Alarm circuits	Program flow diagrams
Test circuits	Program listings
	Special diagrams

TABLE 6. Checklist for Equipment PPPs - Continued

<u>Category/Topic</u>	<u>Category/Topic</u>
<b>1-3 FUNCTION DESCRIPTION</b> (Knowledge) - Continued	<b>1-4 INTERFACE DESCRIPTION</b> (Knowledge) - Continued
Program, subprogram, routine, subroutine, etc. requirements	Power requirements/sources
Analytical description	Input/output signals
Purpose	Types
Capabilities/limitations	Interpretation
Modes and sequences	Format
Logic functional breakdown	Source/destination
Mathematical analysis	<b>1-5 OPERATIONAL DESCRIPTION (Knowledge)</b>
Mechanization	Procedures
<b>1-4 INTERFACE DESCRIPTION</b> (Knowledge)	Regulation and authority
Identification	Pre-operational (includes tape installation, etc.)
Name	Typical
Physical appearance	Emergency/casualty
Reference symbols/designator	Post-operational
Location	Security requirements
Physical	Data and records
Electrical	Analysis of operation information (displays, readouts, etc.)
Mechanical	Use of data (by whom, where, when, why)
Hydraulic	Logs
Pneumatic	
Functional	



**TABLE 6. Checklist for Equipment PPPs - Continued**

<u>Category/Topic</u>	<u>Category/Topic</u>
<b>1-5 OPERATIONAL DESCRIPTION (Knowledge) - Continued</b>	<b>1-6 MAINTENANCE DESCRIPTION (Knowledge) - Continued</b>
Conditions of external equipment _____	CM requirements _____
Signals _____	Symptom recognition _____
Power _____	Diagnosing _____
Modes _____	Procedures _____
Safety _____	Authorized techniques _____
If there are no operation tasks associated with the equipment, the statement "No operation involved" will follow the heading. _____	Signal tracing, electrical or mechanical measurements _____
<b>1-6 MAINTENANCE DESCRIPTION (Knowledge)</b>	Alignment, adjustment, and calibration _____
Maintenance policy _____	Disassembly and reassembly procedures (repair and/or replacement) _____
Regulations and authority _____	Safety _____
Levels of preventive and corrective maintenance _____	Security _____
Preventive (schedules and records) _____	<b>1-7 DOCUMENTATION (Knowledge)</b>
Corrective (replaceable/repairable philosophy and techniques) _____	Documentation (for each consider knowledge of organization, contents, use, classification, function, interpretation, and use of symbols and terminology presented, etc.) _____
Special tools and test equipment _____	Equipment level technical documentation _____
PM requirements _____	<b>2-1 OPERATION (Skills)</b>
Inspection _____	Pre-operational _____
Cleaning _____	Locate controls _____
Lubrication _____	Initial control settings _____
Alignment, adjustment, and calibration _____	
Performance checks _____	

**TABLE 6. Checklist for Equipment PPPs - Continued**

<u>Category/Topic</u>		<u>Category/Topic</u>	
2-1 OPERATION (Skills) - Continued		2-1 OPERATION (Skills) - Continued	
Condition of external equipment		Safety	—
Signals	—	Security	—
Power	—	If there are no operation tasks associated with the equipment, the statement "No operation involved" will follow the heading.	—
Loads	—		
Install tapes/ribbons/paper	—	2-2 MAINTENANCE (Skill)	
Turn-on	—	Special tools and test equipment	—
Warmup	—	Preventive	—
Initialize	—	Inspection	—
Program load	—	Cleaning	—
Parameter insertion	—	Lubrication	—
Checkout procedures	—	Alignment, adjustment, and calibration	—
Operational	—	Performance checks	—
Modes	—	Corrective	—
Procedures	—	Fault isolation	—
Emergency/casualty	—	Symptom recognition	—
Modes	—	Diagnosing	—
Procedures	—	Procedures	—
Post-operational	—	Authorized techniques	—
Procedures	—	Signal tracing (electrical/mechanical measurements)	—
Shutdown	—	Alignment, adjustment, and calibration	—
Typical	—	Removal and replacement (repair)	—
Emergency/casualty	—	Disassembly	—
Data reduction	—		
Log entries	—		

**TABLE 6. Checklist for Equipment PPPs - Continued**

<u>Category/Topic</u>		<u>Category/Topic</u>	
2-2 MAINTENANCE (Skills) - Continued			
Assembly	—	Alignments/adjustments	—
Postcorrective	—	Safety	—
Performance checks	—	Security	—

**TABLE 7. Checklist for Subsystem PPPs**

<u>Category/Topic</u>	<u>Category/Topic</u>
1-1 GENERAL (Knowledge)	Connection or signal flow
Purpose	Time sequence
Major components	Physical/functional relationships
Operational capabilities	Controls and indicators
Operational characteristics	Mathematical analysis
Limitations	Functional loops
Outputs and displays	Function
Model differences	Blocks
Special terminology, symbols, and abbreviations	Signals
Subsystem components	Control
Subsystem functions	Mechanical or optical assemblies
Subsystem tie-in	Sequential modes of operation
System tie-in	Alternate mode description
Operational characteristics	Test modes
Power requirements	Emergency (bypass) capabilities
Signal requirements	Capabilities for operational change in environmental extremes
Security	Programming
1-2 PHYSICAL DESCRIPTION (Knowledge)	1-4 INTERFACE DESCRIPTION (Knowledge)
Arrangement/construction features	Physical interface
Recognition of major components (controls, displays, and indicators)	Electrical
	Mechanical
1-3 FUNCTIONAL DESCRIPTION (Knowledge)	Hydraulic
Major functional block level	Pneumatic
Block names	Functional interface
Signal names	Power sources/requirements
	Power characteristics
	Input signal sources

**TABLE 7. Checklist for Subsystem PPPs - Continued**

<u>Category/Topic</u>		<u>Category/Topic</u>	
<b>1-4 INTERFACE DESCRIPTION</b> (Knowledge) - Continued		Theory	—
Output signal destinations	—	Functions	—
Interface component locations	—	Interpretation	—
Interface component identification	—	Safety	—
Interface signals	—	Security	—
Types of signals	—	If there are no operation tasks associated with the equipment, the statement "No operation involved" will follow the heading.	—
Interpretation of signals	—		
Format of data	—	<b>1-6 MAINTENANCE DESCRIPTION</b> (Knowledge)	
<b>1-5 OPERATION DESCRIPTION</b> (Knowledge)		Maintenance policy	—
Operational theory (relationships of subsystem to system purpose)	—	Special tools and test equipment	—
Operational controls (positions)	—	Preventive maintenance procedures	—
Operational modes	—	Indications	—
Purposes	—	Records	—
Effects	—	Reports	—
Sequence	—	Instructions	—
Conditions for use	—	Alignment, adjustment, and calibration	—
Interpretation of operational information (displays, readouts, etc.)	—	Operational test	—
Operational procedures (include tape, paper installation)	—	Corrective maintenance	—
Emergency operation procedures	—	Symptom recognition	—
Operational logs	—	Fault isolation	—
Operating regulations and authority	—	Alignment, adjustment, and calibration	—
Operational programs	—	Repair/assembly procedures	—
		Safety	—
		Security	—

**TABLE 7. Checklist for Subsystem PPPs - Continued**

<u>Category/Topic</u>	<u>Category/Topic</u>
1-7 DOCUMENTATION (Knowledge)	Operational communications
Documentation (for each consider knowledge of organization, contents, use, and classification)	Post-operational procedures
Subsystem level technical documentation	Data reduction (consider interpretation and use)
	Operational log entry
2-1 OPERATION (Skills)	If there are no operation tasks associated with the equipment, the statement "No operation involved" will follow the heading.
Operational conditions of external power sources	2-2 MAINTENANCE (Skills)
Operational conditions of external signal sources	Special tools and test equipment
Operational condition of external loads (dummy or real)	Preventive
Pre-operational procedures	Alignment, adjustment, and calibration
Safety	Operational test
Security	Corrective
Turn-on procedures	Fault isolation
Warmup/standby sequence	Symptom recognition
Typical operation	Alignment, adjustment, and calibration
Normal procedures (various modes)	Repair procedures
Abnormal environment procedures	Safety
Emergency operation	Security
Shutdown	
Normal	
Emergency	

**TABLE 8. Checklist for System PPPs**

<u>Category/Topic</u>		<u>Category/Topic</u>	
1-1 GENERAL (Knowledge)		1-3 FUNCTIONAL DESCRIPTION (Knowledge) -Continued	
Purpose	—	Function of each control and indicator	—
Major components and functions	—		
Model/series variations	—	1-4 INTERFACE DESCRIPTION (Knowledge)	
Special terminology, abbreviations, and symbols	—	Interface with other systems	—
Operational characteristics and capabilities	—	Signal source	—
Power requirements	—	Signal destination	—
Environmental conditions	—	Signal characteristics	—
Accuracies	—	Power requirements	—
Operational flexibility	—	Power characteristics	—
Security	—	1-5 OPERATIONAL DESCRIPTION (Knowledge)	
Unique knowledge factors not related to categories 1-2 through 1-7	—	Authority and regulations	—
1-2 PHYSICAL DESCRIPTION (Knowledge)		Operational tasks/conditions	—
Identification of system and subsystem components	—	Readiness condition procedures	—
Location and description of displays, controls, and indicators	—	Modified procedures	—
1-3 FUNCTIONAL DESCRIPTION (Knowledge)		Casualty/emergency/alternate procedures	—
Functional operation/simulation	—	Monitoring	—
Control	—	Operational sequence	—
Signal flow	—	Analysis of indications	—
Sequential modes of operation	—	Alarms	—
Indications	—	Displays	—
Programming	—	Readouts	—
Functional loops	—	Printouts	—
Logical functional breakdown	—	Data logging requirements	—
		Data reduction	—
		Safety	—

**TABLE 8. Checklist for System PPPs - Continued**

<u>Category/Topic</u>		<u>Category/Topic</u>	
<b>1-6 MAINTENANCE DESCRIPTION (Knowledge)</b>		<b>2-1 OPERATION (Skills) - Continued</b>	
Maintenance policy	—	Pre-operational procedures	—
Maintenance procedures	—	Safety	—
System test	—	Security	—
Malfunction indications	—	Turn-on procedures	—
Fault isolation	—	Warmup/standby sequence	—
Repair	—	Typical operation	—
Assembly	—	Normal procedures (various modes)	—
Safety	—	Abnormal environment procedures	—
Security	—	Emergency operation	—
<b>1-7 DOCUMENTATION (Knowledge)</b>		Shutdown	—
Documentation (for each consider knowledge of organization, contents, use, classification, etc.)	—	Normal	—
System manual	—	Emergency	—
One-function diagram	—	Operational communications	—
Preventive maintenance management plan	—	Post-operation procedures	—
Standard maintenance procedures	—	Data reduction	—
Standard operating procedures	—	Operational log entry	—
System level programs and procedures	—	If there are no operation tasks associated with the system, the statement "No operation involved" will follow the heading.	—
<b>2-1 OPERATION (Skills)</b>		<b>2-2 MAINTENANCE (Skills)</b>	
Operational condition of external power sources	—	To be covered in the sub-system/equipment level tables.	—
Operational condition of external signal sources	—		
Operational condition of external loads (dummy or real)	—		



**TABLE 9. Checklist for Task/Function PPPs**

<u>Category/Topic</u>		<u>Category/Topic</u>	
1. KNOWLEDGE		Functional description	—
Task purpose	—	Safety	—
Function purpose	—	2. SKILLS	
Abbreviations	—	Use of tools	—
Terms	—	Use of test equipment	—
Symbols	—	Procedure performance	—
Completed Task characteristics	—	Policy compliance	—
Completed Function characteristics	—	Security	—
Policies	—	Precaution compliance	—
Authorities	—	Safety	—
Data Usage	—	Use of documentation	—
Logs	—	Security	—
Records	—	Tools	—
Procedures	—	Test equipment	—
Physical description	—	Organization	—
		Content	—
		Regulations	—

**TABLE 10. Checklist for Background PPPs**

<u>Category/Topic</u>		<u>Category/Topic</u>	
1. KNOWLEDGE		Symbology	—
Principles	—	Terminology	—
Rules	—	2. SKILLS	
Concepts	—	Mental	—
Phenomena	—	Physical	—